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THE XANTHINES (THEOBROMINE AND AMINOPHYLLINE) IN THE TREATMENT OF CARDIAC PAIN

HARRY GOLD, M.D.

NATHANIEL T. KWIT, M.D.

AND

HAROLD OTTO, M.D.

NEW YORK

An endeavor was made in this study to secure evidence on the question of whether the xanthines relieve cardiac pain.

SELECTION OF PATIENTS

The subjects were 100 ambulant patients in attendance at the cardiac clinic, in whom the diagnosis of arteriosclerotic heart disease with cardiac pain was made, in accordance with the nomenclature and criteria adopted by the New York Heart Association.[1]

They were selected from a total case load of approximately 700 patients, representing an average sample of the cardiac clinic population, comprising several racial groups, both native and foreign born. The study was conducted during a period of five years. The duration of the study in any given case varied from two to fifty months, the average being fifteen months.

Some of the characteristics of the whole group are listed in table 1.

None of these patients had signs of congestive heart failure. Only patients with pain on effort were studied, although it was realized that some cases of true cardiac pain were excluded by this restriction. However, this measure served further to insure against the inclusion of patients in whom the thoracic pain might be of noncardiac origin.

The severity of the pain varied greatly, from mild substernal pressure or discomfort induced by moderate effort, only slightly interfering with the patient's ability to carry on (1+), to excruciating pain induced by the slightest effort, occurring also when the patient was at rest, so as to cause almost complete incapacity (3+).

Careful questioning of the patient at every visit to the clinic made it possible to exclude those cases in which there was reason to believe that cooperation in the uninterrupted use of whatever drug was issued and in the accurate reporting of any omissions was not sufficiently faithful for the purpose of this study.

If the xanthine should produce a moderate improvement in the efficiency of the coronary circulation, the effect of this might conceivably escape detection in individuals engaged in very heavy work. From this point of view our subjects were particularly favorable for this study, since most of them, as shown in the table, were not engaged in any occupation.

GLYCERYL TRINITRATE TEST

Early in the course of the study it was believed desirable to restrict the selection of patients to those who could establish their qualifications for service in such a study as this by their ability to distinguish between the efficacy of glyceryl trinitrate taken under the tongue and a soluble placebo tablet taken in the same manner for relief during attacks of pain. The discovery of several patients who found the two equally effective among those who had suffered an attack of coronary thrombosis and were subject to thoracic pain on effort led us to abandon this restriction.

The results obtained in sixty patients in whom the glyceryl trinitrate test was made are of some interest. These patients received glyceryl trinitrate tablets, 1/100 or 1/150 grain (0.6 or 0.4 mg.), which they were directed to take under the tongue at the onset of an attack of pain. In many of these cases, periods of glyceryl trinitrate testing were alternated with periods in which a soluble placebo was dispensed. The duration of these periods was from one week to several weeks in each case. The results are presented in table 2. Of the sixty patients, forty-nine (82 per cent) reported relief by the use of glyceryl trinitrate during attacks. Of eighteen cases in which the soluble placebo was also used, fourteen (78 per cent) reported relief of symptoms. This is not a strictly valid comparison of the relative effectiveness of the placebo and glyceryl trinitrate because of the small number of cases in which the placebo was used. Nevertheless these results give some idea of how often a placebo taken under the tongue may be judged by the average clinic patient to afford relief during attacks of cardiac pain.

The qualification of the patient to testify regarding the efficacy of a vasodilator drug is, no doubt, best established in those cases in which the attack of pain is such as to enable the patient always to distinguish between the glyceryl trinitrate and the placebo. However, the fact that the patient believed that he obtained partial or even complete relief with the placebo during brief attacks of pain does not necessarily disqualify his testimony in a study of theobromine A patient who is subject to brief attacks of cardiac pain on effort which necessitate immediate interruption of the physical activities and which, in turn, leads to rapid cessation of pain, may easily be in error in judgment regarding the efficiency of a drug used to terminate the attack. Such a patient, however, need not necessarily have difficulty in distinguishing a potent from an inert agent when the

From the Department of Pharmacology of Cornell University Medical College and the Cardiac Clinics of the Beth Israel Hospital and the Hospital for Joint Diseases.

Faithful cooperation was rendered throughout the course of this study by Miss Kathleen Scott (social worker, Hospital for Joint Diseases) and Miss Margaret Slevin (social worker, Beth Israel Hospital).

1. Criteria for the Classification and Diagnosis of Heart Disease.

results compared are changes in the frequency of attacks and in the capacity for effort without distress. These individuals, therefore, are entirely suitable for the study of the effects of a drug like theobromine, which is presumed to act over a protracted period.

DRUGS AND OTHER TREATMENT

Most of these patients had been in attendance at the clinic for a long time when the study was started, and many of them were already subject to restrictions in diet and effort. No advice was given for modification of habits or activities during the course of this study.

TABLE 1.—*Classification of One Hundred Patients with Arteriosclerotic Heart Disease and Cardiac Pain*

Average age	57.6 years
Age range	40-82 years
Number of males	85
Number of females	15
Number with hypertension (25 males, 9 females)	34
Number with electrocardiographic changes indicating myocardial damage	51
Number with coronary thrombosis (30 males, 3 females)	33
Classification of pain based on severity, duration and frequency of attacks, and degree of physical limitation:	
Slight (1+)	9
Moderate (2+)	45
Severe (3+)	46
Occupation:	
Number not working	75
Number working (15 women doing limited housework; 7 men engaged in light part-time work; 3 men engaged in light full-time work)	25
Range of periods of study	2-50 mos.
Average period of study	15 mos.

The choice of a xanthine presented a problem. The results of animal experiments dealing with their effect on the coronary circulation are conflicting. Smith, Miller and Graber [2] found theophylline preparations more effective than other xanthines. In contrast, Gilbert and Fenn [3] and Heathcote [4] found theobromine preparations more effective than those of theophylline. There is also considerable divergence of opinion in the clinical literature on the relative merits of different members of the xanthine group. It has been stated [5] that therapeutic effects may be produced by one member when another has failed. Each has its adherents (diuretin,[6] theophylline,[7] theobromine [8]). The one that appears to be most popular at the present time is theophylline with ethylenediamine, although some [5] maintain that theobromine or its preparations are equally effective and sometimes more effective.

The drugs were dispensed in the clinic. In this study theobromine in the form of a 5 grain (0.3 Gm.) tablet was used in all the cases, and in twelve of them tests with aminophylline (theophylline with ethylenediamine), given in 1½ grain (0.1 Gm.) tablets, were also carried through. The total daily dose of theobromine varied from 15 to 60 grains (1 to 4 Gm.), given in single doses of from 5 to 15 grains (0.3 to 1 Gm.) at intervals of about six hours. The highest daily dosage of theobromine was from 15 to 25 grains (1 to 1.6 Gm.) in 26 per cent of the cases, 30 grains (2 Gm.) in 53 per cent, and between 40 and 60 grains (2.6 to 4 Gm.) in 21 per cent. The highest total doses of aminophylline were 9 and 12 grains (0.6 and 0.8 Gm.) daily in all cases except one, in which the highest dose was 6 grains (0.4 Gm.). These were given in single doses of 3 grains (0.2 Gm.) three or four times a day. These doses correspond to the high doses given by others and exceed the doses used in the majority of reports in the literature.

The xanthines were given in courses lasting from one to twenty-five weeks, the average lasting three and one-half weeks. Some patients received as many as seven courses; the average was two courses for each patient. Several courses of treatment with the xanthine and the placebo were carried through, especially in those cases in which obvious factors that might vitiate a valid comparison existed, such as a change of weather or of work. In all, 209 courses of treatment with the xanthines were given. Each course was alternated with a period in which the patient received various agents such as sodium salicylate, acetylsalicylic acid, calomel, quinidine, cascara, mixture of rhubarb and soda (N. F.), digitalis, phenobarbital or codeine. In each case a comparison was also made of the efficacy of the xanthines with that of lactose.

The physical characteristics of the oral placebo that we used as a routine, a tablet of lactose, were not identical with those of the xanthine. It was not considered necessary to have them identical for those patients who reported no improvement while taking a xanthine. However, it was essential to take the factors of size, shape and taste into account in the subsequent testing in cases in which improvement occurred during the use of the xanthine but which failed to continue when the medication was changed. The validity of the control was materially enhanced by the fact that the duration of the courses with the placebo and the xanthines was fairly long and that courses of each were repeated frequently, at different seasons of the year, and under other conditions as nearly comparable as possible.

TABLE 2.—*Efficacy of Glyceryl Trinitrate and Placebo in Providing Relief During Cardiac Pain*

Number of Patients	Glyceryl Trinitrate	Placebo
34	+	0
2	+	−
8	−	0
9	+	+
4	+ or −	+ or −
2	−	−
1	−	+
Total	60	18

(+) Attacks always relieved; (−) not relieved; (0) not tested; (+ or −) sometimes relieved and sometimes not.

METHOD OF SECURING DATA

The method of securing data proved to be by far the most laborious aspect of the whole work. The validity of the results in this study depends chiefly on the nature of the questions that the patient was asked and the accuracy of the answers. No effort was spared in the endeavor to secure the patient's most accurate judgments, since these judgments regarding changes in the severity of a subjective symptom formed the factual data on which the analyses are based. It was fully realized that the study could be no better than this part of the work.

2. Smith, F. M.; Miller, G. H., and Graber, V. C.: The Effect of Caffeine Sodio-Benzoate, Theobromine Sodio-Salicylate, Theophylline and Euphylline on the Coronary Flow and Cardiac Action of the Rabbit, J. Clin. Investigation **2**: 157 (Dec.) 1925.

3. Gilbert, N. C., and Fenn, G. K.: The Effect of the Purine-Base Diuretics on the Coronary Flow, Arch. Int. Med. **44**: 118 (July) 1929.

4. Heathcote, R. St. A.: The Action of Caffeine, Theobromine and Theophylline on the Mammalian and Batrachian Heart, J. Pharmacol & Exper. Therap. **16**: 327 (Dec.) 1920.

5. Gilbert, N. C., and Kerr, J. A.: Clinical Results in Treatment of Angina Pectoris with the Purine-Base Diuretics, J. A. M. A. **92**: 201 (Jan. 19) 1929.

6. Breuer, R.: Zur Therapie und Pathogenese der Stenokardie und verwandte Zustände, München. med. Wchnschr. **49**: 1604, 1902.

7. Smith, F. M.; Rathe, H. W., and Paul, W. D.: Theophylline in the Treatment of Disease of the Coronary Arteries, Arch. Int. Med. **56**:1250 (Dec.) 1935.

8. Willius, F. A.: Newer Methods in the Treatment of Diseases of the Heart, Collected Papers of the Mayo Clinic **18**: 670, 1926.

It is not feasible to describe in detail the technic of the questioning; it varied from patient to patient. It should be stated, however, that the hurried interrogation of the average clinic routine history proved entirely inadequate for our purpose.

Some general principles that we endeavored to take into account may be mentioned:

The study was started during a period which the patient regarded as representing pain of average severity or the habitual status. The condition on the previous visit served usually as the point of reference in plotting the subsequent course. However, when the visits were more infrequent and the patients seemed uncertain of this point of reference, they were directed to relate the severity of the symptoms to their habitual status. Patients were also directed to consider in their judgment the frequency, the severity and the duration of the pain, and any change that they might have been able to detect in their ability to carry on their usual affairs without pain. The record of each visit included the patient's estimate of the entire period since the last visit and not merely one or two days during the period or the last day of the period.

It was found that, in the initial reply regarding changes in pain, patients often failed to take into account all the necessary factors on which the judgment was to be based, and, not infrequently, more thorough questioning resulted in their revision of their first appraisal. Therein was appreciated an important source of error of another kind; namely, the leading question. Various devices were employed to guard against directing the patient's judgment. Usually they were frankly informed that the examiner was uncertain as to whether the medicine would prove helpful or not, and the idea was conveyed to them that, in any case, subsequent planning for their treatment depended on the accuracy of their statements regarding their condition during the period that had elapsed. In a further attempt to eliminate the possibility of bias, the questioner usually refrained from informing himself as to the agent that had been issued until after the patient's appraisal of the period had been obtained.

The intensity of the pain was graded and charted. Three grades in each direction were considered: increase of pain, slight, moderate or marked; decrease of pain, slight, moderate or marked.

CAUSE AND EFFECT

The plan of the study included a consideration of the manner in which cause and effect were to be established.

Interesting data on this point are provided by the patients themselves. Their statements often represent not only matters of fact but their reflections on causes and effects. Patients were encouraged to disclose their own belief regarding the influence of the drug. Some expressed strong impressions that the agents exerted no beneficial effects, and the lack of disposition on the part of many patients to continue to keep their clinic appointments and to take the medicine regularly may usually be considered as an expression of opinion having a similar significance. Some expressed a definite conviction at times that it was the drug which was responsible for the relief. That that drug was often the lactose placebo, and that some patients insisted on its efficacy, protesting against any suggested change, justifies all the circumspection one can exercise in accepting a patient's judgments in a study of this sort. In some cases this type of questioning served to direct attention to extraneous factors which the patient clearly perceived as a possible cause of the improvement, such, for example, as a change in the weather or in the amount of work.

The data obtained in this way proved to be entirely unreliable as a basis for establishing the efficacy of theobromine. Several possible causes for change in symptoms, some additive, some antagonistic, practically always coexisted. It seemed futile to attempt to unravel and evaluate the various factors, many of which are unknown, that might be responsible for the relief of pain.

The method we employed for determining cause and effect was more objective and relatively free of personal judgments. The procedure was based on this general formulation; namely, if the relief of pain during the use of the xanthine is due to the specific action of the drug, the patient should be able to distinguish its effects, and to do so repeatedly, from the effects of a placebo given under similar conditions and in such form as to preclude its detection by the patient through any means other than the relief of pain.

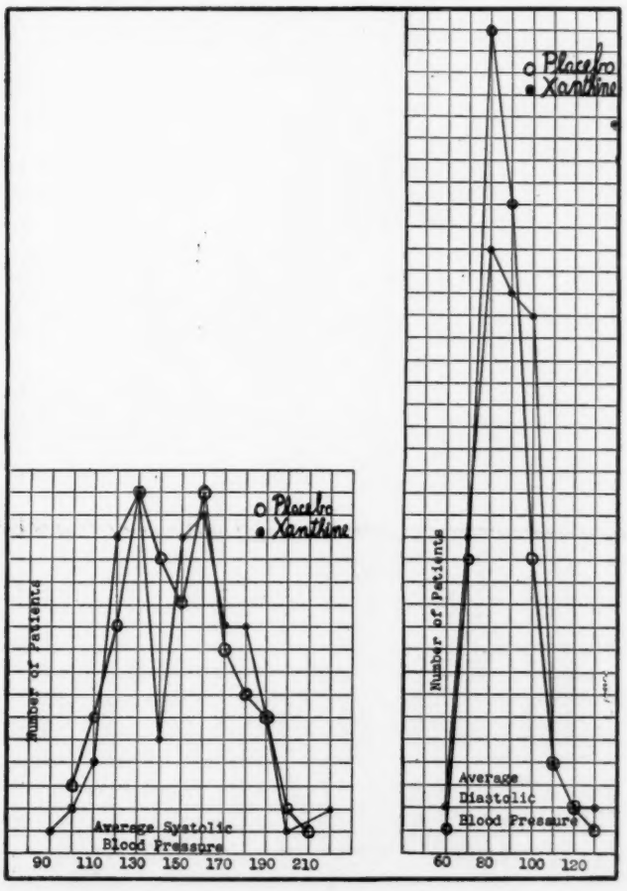

Chart 1.—Frequency distribution of average systolic and diastolic blood pressures in the 100 cases during the use of a placebo compared with that during treatment with a xanthine.

RESULTS

Blood Pressure.—Records of the blood pressure were taken with the mercury manometer at almost every visit throughout the study. Very marked variations, as high as 70 mm. systolic and 30 mm. diastolic, were found in some individuals at different times. The highest and lowest systolic pressures for any individual in a given period were averaged similarly for the diastolic pressures. The averages for the systolic and diastolic pressures in the placebo and xanthine periods are com-

pared in a frequency distribution curve (chart 1). This discloses no significant effect of the xanthine on the blood pressure.

Electrocardiograms were not taken systematically as part of this study. There were several electrocardiograms for each patient, but in only nine cases was a tracing taken during the use of the xanthine. In these, the form of the deflections, their voltage and the time intervals are indistinguishable from those in the patients' control tracing.

Toxic Effects.—Fourteen patients at some time during the study complained of one or more of the following symptoms: dizziness, light-headedness, headache, weakness, nausea, vomiting (in one case) and heartburn. It is not possible to be certain in how many of these cases the symptoms were due to the xanthine. In five cases the symptoms disappeared even though the theobromine was continued in the same or in higher daily doses (from 30 to 60 grains). In three the symptoms disappeared when the doses were reduced from 40 to 20 grains daily. One patient complained of nausea while taking a daily dose of 9 grains of aminophylline.

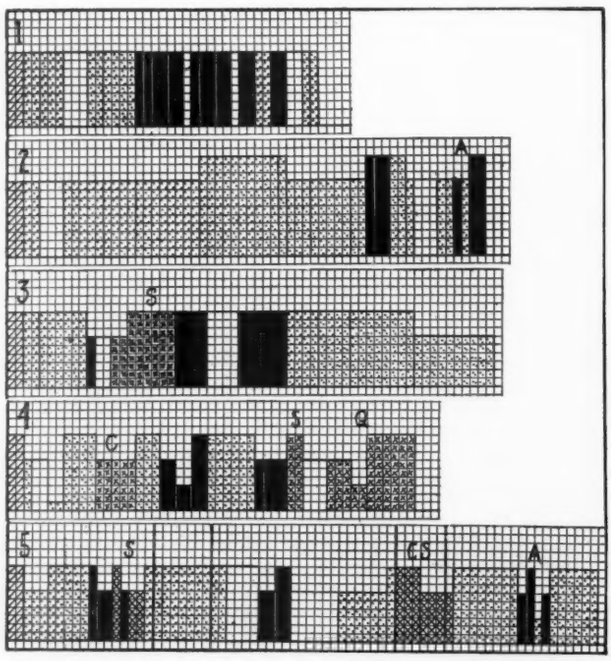

Chart 2.—Course in cases 1 to 5. The first column of each chart is made to represent the habitual status of the patient. It is arbitrary, nine squares high, and a column of the same height may refer to pain of different severity in different patients. The periods between individual clinic visits are marked off by the dark lines, or by white lines between black columns. An increase in pain is indicated by an upward direction of the column and a decrease by a downward direction, as follows: slight (change of column by three squares); moderate (change of column by six squares); marked (change of column by eight squares). The solid black columns always indicate a xanthine; it is theobromine, except when labeled *A* (aminophylline). The dotted columns always indicate a placebo. The cross-hatched columns always indicate active agents and are labeled as follows: *S* (sodium salicylate), *C* (calomel), *Q* (quinidine sulfate) *CS* (cascara sagrada), *Co* (codeine sulfate), *B* (barbital), *P* (phenobarbital), *R* (mixture of rhubarb and soda [N. F.]), *D* (digitalis). Blank columns indicate periods without medicine.

Effect on Pain.—The effect on cardiac pain of the first course of treatment with the xanthine was compared with that of the first course of a placebo, and the results are given in table 3. As may be seen, most of the patients reported no change, a small number reported that the pain was worse and about one fourth of the patients in each group reported improvement. Of those who reported improvement, eight belonged to both groups.

The full significance of these observations is not appreciated until one examines the complete record of the various cases. It is not feasible to present a detailed account of all the cases, but several typical cases that have been selected and are shown in charts 2 to 5 will suffice to demonstrate the results, as well as the manner in which the study was pursued to determine whether a patient can identify a xanthine by its influence on cardiac pain from among other agents either inert or known to be of little or no value in this condition.

The records of the hundred cases studied in this way fall into four types:

(*a*) Those in which the habitual status remained constant and apparently uninfluenced by any drug that was used (8 per cent) (1, chart 2).

(*b*) Those in which a change of status was always for the worse (12 per cent) (2, chart 2).

(*c*) Those in which the change of status was always in the direction of improvement (34 per cent) (3, 4 and 5, chart 2; 8, 9 and 11, chart 3; 12, chart 4).

(*d*) Those in which the condition fluctuated markedly in both directions (45 per cent) (6, 7 and 10, chart 3; 13 to 17, chart 4; 18 and 19, chart 5).

A careful perusal of these records will show that the change in the amount of pain occurring during the use of a xanthine is reproduced by a course of a placebo in every case. It is important to note, however, that there is no dearth of isolated instances which, without further testing, might have led to the impression that the xanthine, by a specific action, had caused improvement.

Some authors [5] have interpreted the phenomenon as tolerance when a patient ceased to show improvement from a xanthine, and as the absence of cross-tolerance when, by a change to another preparation of a xanthine, the improvement was reestablished. Both of these phenomena are reproduced in our records during the use of a placebo and are therefore probably fortuitous, representing neither tolerance nor absence of cross-tolerance.

TABLE 3.—*Changes in Pain During First Course of Treatment*

Number of Patients	Theobromine	Placebo
Pain unchanged	63	69
Pain diminished	22	25
Pain increased	15	6
Duration of course	1.6 weeks (1-4 weeks)	2.6 weeks (1-8 weeks)

There was one patient (19) who gave strong indication that he was capable, by the relief of pain, of differentiating the xanthine in a variety of forms (tablets and solutions of various colors and tastes) from among a number of other agents. This experiment yielded results that were almost conclusive, but the patient also appeared able to distinguish clearly the taste of the theobromine from that of other agents, even when masked. Before the experiment was carried through to exclude that factor the patient died, and with that there vanished the possibility of conclusive proof in what might have been our only positive case.

COMMENT

Askanazy [9] appears to have been the first to direct attention to the use of the xanthines in angina pectoris. In the period of about forty years that has elapsed, their use for this purpose has gained momentum and at the present time it is probable that few sufferers with

9. Askanazy, S.: Klinisches über Diuretin, Deutsches Arch. f. Klin. Med. **56**: 209, 1895.

cardiac pain escape a course of treatment with a xanthine at one time or another.

Numerous reports have been published on the use of these agents for the relief of cardiac pain.[10] These reports do not all show the same degree of optimism. Breuer[6] declared the introduction of theobromine for the treatment of cardiac asthma and angina pectoris "to be the most praiseworthy therapeutic achievement

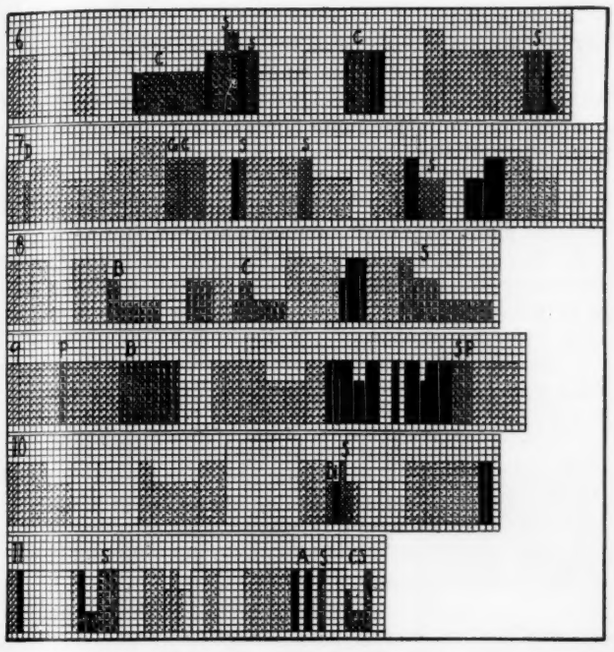

Chart 3.—Course in cases 6 to 11.

of the last decade." Gilbert and Kerr[5] concurred in this statement "with equal emphasis." They reported relief in 83 per cent of a group of eighty-six patients with angina pectoris. On the other hand, Dock[10] observed that "in most cases of angina pectoris no relief was given, but in an important minority relief was immediate and complete." The experience of different observers regarding the time it takes to secure the full therapeutic effects also shows wide divergence. For example, Dock[10] stated that, if decided benefit is not noted within three or four days, further administration is useless. On the other hand, Smith, Rathe and Paul[7] observed that, in order to insure the maximum benefit from the drug, its administration should be continued for a long time, and Musser[10] found that pain is relieved and the pressure is distinctly lowered "after theophylline-ethylenediamine has been taken for weeks or months."

With one exception,[11] the clinical reports have two characteristics in common: first, they all advocate the use of the xanthines and report beneficial results in numbers up to about 80 per cent of the cases in different series; second, they are reports of clinical experience rather than of controlled investigations and represent observations made under conditions that fail to meet essential standards of scientific evidence.

10. Dock, William: The Use of Theobromine for Pain of Arteriosclerotic Origin, California & West. Med. **25**: 636 (Nov.) 1926. Musser, J. H.: Theophylline-Ethylenediamine in Heart Disease Associated with Pain, J. A. M. A. **91**: 1242 (Oct. 27) 1928. Guggenheimer, H.: Zur Herzbehandlung bei Erkrankungen der Koronargefässe, Deutsche med. Wchnschr. **49**: 1007 (Aug. 3) 1923; Ueber die Wirkungsweise des Euphyllins bei kardiovasculärem Cheyne-Stokes und Asthma cardiale, Ztschr. f. Kreislaufforsch. **25**: 98 (Feb. 1) 1933. Gilbert and Kerr.[5] Breuer.[6] Smith, Rathe and Paul.[7] Willius.[8] Askanazy.[9]

11. Evans, William and Hoyle, Clifford: The Comparative Value of Drugs Used in the Continuous Treatment of Angina Pectoris, Quart. J. Med. **26**: 311 (July) 1933.

When a patient declares that pain has diminished during the use of the xanthine the cause might be the specific action of the drug, but it might also be any one of a number of other factors, such as:

1. Spontaneous variations in the course of the pain.
2. Change in the weather.
3. Change of occupation or amount of work.
4. Change of diet.
5. Change in eating habits with increase in the amount of rest before and after meals.
6. Condition of the bowels.
7. Emotional stress.
8. Change in domestic affairs.
9. Confidence aroused in the treatment.
10. Encouragement afforded by any new procedure.
11. A change of the medical adviser.

Authors have clearly appreciated the numerous sources of error, but they have failed to take many of them sufficiently into account or have minimized their importance in the final evaluation. An interesting example of this is the important study by Gilbert and Kerr.[5] In their report they referred to angina pectoris as "a symptom complex so readily influenced by nervous factors, and in which there are so many unknown variables," and in regard to treatment they stated: "Reassurance alone is a therapeutic aid of no mean value. Some patients tend to improve from a decrease in emotional strain and from other factors unknown." The regimen in their cases consisted in observation in

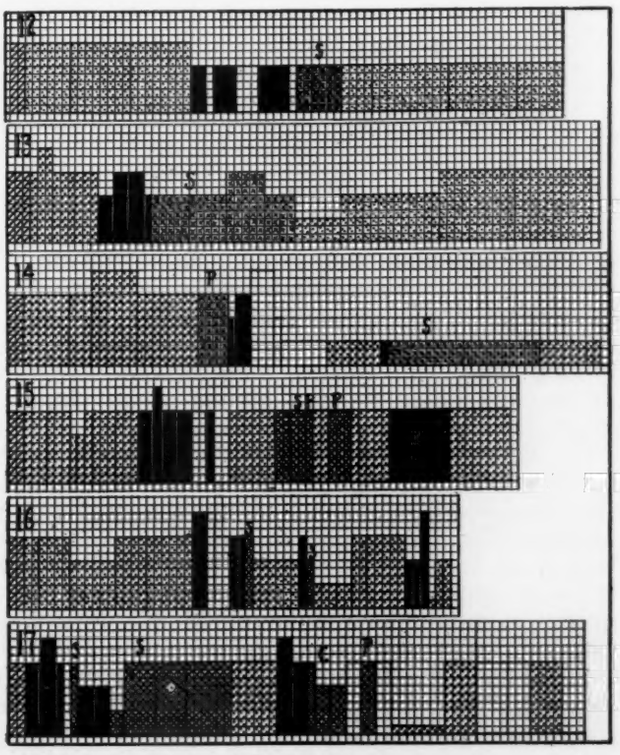

Chart 4.—Course in cases 12 to 17.

the hospital for a few days and the following routine after discharge: regulation of the bowels with liquid petrolatum or three or four glasses of warm water on rising, rest one-half hour before meals and one-half to one hour after meals, withdrawal of "foods which in their experience caused gas," and a dose of a xanthine four times daily. Here, therefore, are five measures, each in itself competent to exert a beneficent influence on cardiac pain, and when in a high proportion of the

eighty-six cases relief was obtained the result was ascribed to the xanthines, without proof that a placebo given under similar conditions would not have accomplished as much.

A word about the experimental basis for the use of the xanthines in the treatment of cardiac pain: Perhaps it is unnecessary to state that the strength of the proof supplied by animal experiments cannot materially enhance the validity of inadequate clinical observations. Clinical reports on the xanthines in cardiac pain lean very heavily on the results of the studies with the isolated heart and in anesthetized animals. These show fairly consistently that the xanthines dilate coronary arteries,[12] and the belief prevails that the soundness of their clinical use is secured in these pharmacologic studies. The indications for the use of the xanthines are, in fact, derived from a combination of current theory as to the mechanism of cardiac pain and the means by which it may be relieved, and dubious inferences from the results of animal experiments; for not one of them is free of objections as a basis for the assumption that the xanthines produce an increase in the capillary or collateral flow through the heart.[13] The bias created by the undue emphasis placed on the clinical significance of the experimental results is undoubtedly responsible, at least in part, for the fact that the question whether the xanthines actually relieve cardiac pain in patients with coronary disease has received so little satisfactory independent examination.

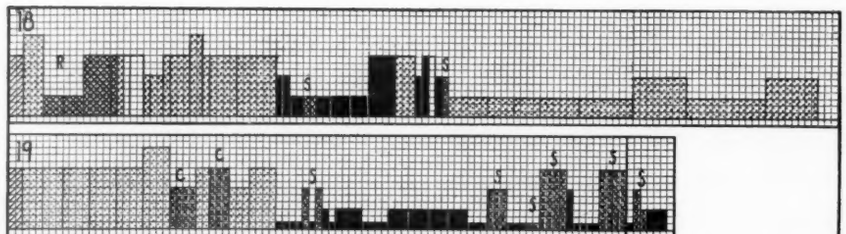

Chart 5.—Course in cases 18 and 19.

Mention has been made of one study in the literature in which exception is taken to the general belief regarding the efficacy of the xanthines in angina pectoris. This is the paper by Evans and Hoyle,[11] which appeared while our study was in progress. In that investigation ninety patients were treated with a variety of agents, including xanthines, and their efficacy compared with a placebo. The influence on the pain was determined not only by an estimate of the patient regarding his status but by a written record kept by the patient of the frequency of attacks. As the result of this work they stated that they were unable to convince themselves that the xanthines (as well as the other drugs which they tested) are worthy even of trial in the routine treatment of cardiac pain.

Our study, carried out under substantially similarly controlled conditions, has yielded similar results, and our conclusion is in accord with theirs; namely, that the xanthines exert no specific action that is useful in the routine treatment of cardiac pain.

12. Fowler, W. M.; Hurevitz, H. M., and Smith, F. M.: Effect of Theophylline Ethylenediamine on Experimentally Induced Cardiac Infarction in the Dog, Arch. Int. Med. **56**: 1242 (Dec.) 1935.

13. Wiggers, C. J., and Greene, H. D.: The Ineffectiveness of Drugs upon Collateral Flow After Experimental Coronary Occlusion in Dogs, Am. Heart J. **11**: 527 (May) 1936. Gold, Harry; Travell, J., and Modell, W.: The Effect of Theophylline with Ethylenediamine on the Course of Myocardial Infarction in Experimental Coronary Occlusion, to be published.

SUMMARY

1. The effect of theobromine and aminophylline on cardiac pain was studied in a group of 100 ambulant patients with angina pectoris.

2. These patients were selected on the basis of proof of organic heart disease, cardiac pain on effort, little or no physical work, and faithful cooperation.

3. An attempt to include only patients who could distinguish relief afforded by glyceryl trinitrate from relief by a soluble placebo tablet taken in the same way during an attack of pain was abandoned, because a fairly large number of patients with cardiac pain were found who could not distinguish between the two. This is due to the transient character of effort pain in a large proportion of the patients.

4. The effect studied was the influence on the severity and frequency of attacks and on the capacity for effort without pain, not relief during attacks of pain.

5. The data consisted of the patients' judgments regarding changes in pain. These data were secured in a manner relatively free of bias by the use of the "blind test."

6. In all, 209 courses of treatment with the xanthines were given, each course being alternated with a course in which a placebo (or some other agent) was used.

7. The doses of the xanthines were from 15 to 60 grains daily of theobromine, and from 9 to 12 grains daily of aminophylline.

8. Changes in the amount of pain were charted. Cause and effect were established by a method relatively free of personal judgments; namely, by comparing sections of the chart representing periods in which a placebo of lactose (or some other agent) was taken with those in which a xanthine was administered.

9. The xanthines were without appreciable influence on the blood pressure.

10. Every type of change in pain observed during the use of a xanthine was reproduced in the same individual by a period in which a placebo was used.

11. The results show, therefore, that patients with cardiac pain are unable to distinguish the effects of a placebo from those of a xanthine when measures are taken to preclude the identification of the agent by any means other than the relief of pain. It is concluded that the xanthines exert no specific action which is useful in the routine treatment of cardiac pain.

REPORT OF CASES

CASE 1 (F. W., a woman, aged 58).—The diagnosis was arteriosclerosis, hypertension, enlarged heart, coronary thrombosis, regular sinus rhythm, bundle branch block. The habitual status was pain 3+. The duration of study was thirty-seven weeks. The daily dosage of theobromine in order of visits was 15 grains the first week and 30 grains thereafter.

CASE 2 (L. F., a man, aged 41).—The diagnosis was arteriosclerosis, hypertension, enlarged heart, coronary thrombosis, regular sinus rhythm. The habitual status was pain 2+. The duration of study was sixty weeks. The daily dosage of theobromine in order of visits was 30 grains and 15 grains. The daily dosage of aminophylline in order of visits was 12 grains and 9 grains.

CASE 3 (M. A., a man, aged 62).—The diagnosis was arteriosclerosis, coronary sclerosis, sclerosis of the aorta, regular sinus rhythm. The habitual status was pain 2+. The duration of study was fifty-nine weeks. The daily dosage of theobromine in order of visits was 30, 30 and 15 grains.

CASE 4 (J. G., a man, aged 51).—The diagnosis was arteriosclerosis, enlarged heart, coronary thrombosis, regular sinus rhythm. The habitual status was pain 1 +. The duration of study was forty-nine weeks. The daily dosage of theobromine in order of visits was 20 grains for the first two and 30 grains thereafter.

CASE 5 (M. S., a man, aged 68).—The diagnosis was arteriosclerosis, hypertension, enlarged heart, coronary thrombosis, regular sinus rhythm. The habitual status was pain 3 +. The duration of study was seventy-one weeks. The daily dosage of theobromine in order of visits was 20 grains for the first two and 30 grains thereafter. The daily dosage of aminophylline in order of visits was 12, 12 and 6 grains.

CASE 6 (M. C., a man, aged 61).—The diagnosis was arteriosclerosis, enlarged heart, coronary sclerosis, regular sinus rhythm, bundle branch block. The habitual status was pain 3 +. The duration of study was eighty-three weeks. The daily dosage of theobromine in order of visits was 20 grains for the first week and 30 grains thereafter.

CASE 7 (A. B., a man, aged 60).—The diagnosis was arteriosclerosis, enlarged heart, coronary sclerosis, regular sinus rhythm. The habitual status was pain 2 +. The duration of study was eighty-eight weeks. The daily dosage of theobromine in order of visits was 20, 20, 30 and 30 grains.

CASE 8 (S. K., a man, aged 70).—The diagnosis was arteriosclerosis, enlarged heart, coronary thrombosis, regular sinus rhythm. The habitual status was pain 3 +. The duration of study was seventy-two weeks. The daily dosage of theobromine in order of visits was 30, 30 and 45 grains.

CASE 9 (A. K., a man, aged 53).—The diagnosis was arteriosclerosis, enlarged heart, coronary thrombosis, regular sinus rhythm. The habitual status was pain 3 +. The duration of study was seventy-six weeks. The daily dosage of theobromine in order of visits was 20 grains for the first five and 40, 40, 60, 60 and 15 grains thereafter.

CASE 10 (A. N., a man, aged 62).—The diagnosis was arteriosclerosis, enlarged heart, coronary thrombosis, sclerosis of the aorta, regular sinus rhythm. The habitual status was pain 3 +. The duration of study was seventy-two weeks. The daily dosage of theobromine in order of visits was 20 grains. The daily dosage of aminophylline in order of visits was 12 and 9 grains.

CASE 11 (F. B., a man, aged 65).—The diagnosis was arteriosclerosis, hypertension, coronary sclerosis, aortic sclerosis, regular sinus rhythm. The habitual status was pain 3 +. The duration of study was fifty-four weeks. The daily dosage of theobromine in order of visits was 30, 30 and 30 grains. The daily dosage of aminophylline in order of visits was 12 and 9 grains.

CASE 12 (G. S., a woman, aged 56).—The diagnosis was arteriosclerosis, hypertension, enlarged heart, sclerosis of the aorta, regular sinus rhythm. The habitual status was pain 1 +. The duration of study was seventy-one weeks. The daily dosage of theobromine in order of visits was 15, 20 and 20 grains.

CASE 13 (H. R., a man, aged 55).—The diagnosis was arteriosclerosis, hypertension, enlarged heart, coronary thrombosis, sclerosis of the aorta, regular sinus rhythm. The habitual status was pain 2 +. The duration of study was seventy-four weeks. The daily dosage of theobromine in order of visits was 20, 30, 30 and 40 grains.

CASE 14 (J. C., a man, aged 40).—The diagnosis was arteriosclerosis, enlarged heart, coronary thrombosis, regular sinus rhythm with premature contractions. The habitual status was pain 2 +. The duration of study was seventy-six weeks. The daily dosage of theobromine in order of visits was 30, 30 and 30 grains.

CASE 15 (S. O., a man, aged 55).—The diagnosis was arteriosclerosis, enlarged heart, coronary thrombosis, regular sinus rhythm. The habitual status was pain 3 +. The duration of study was sixty-four weeks. The daily dosage of theobromine in order of visits was 15, 30, 30, 20, 40 and 20 grains.

CASE 16 (L. L., a man, aged 44).—The diagnosis was arteriosclerosis, enlarged heart, coronary sclerosis, sclerosis of the aorta, regular sinus rhythm. The habitual status was pain 3 +. The duration of study was fifty-six weeks. The daily dosage of theobromine in order of visits was 20, 15, 30 and 20 grains. The daily dosage of aminophylline in order of visits was 12, 12 and 12 grains.

CASE 17 (S. N., a man, aged 53).—The diagnosis was arteriosclerosis (diabetes) enlarged heart, coronary thrombosis, aortic sclerosis, regular sinus rhythm. The habitual status was pain 3 +. The duration of study was seventy weeks. The daily dosage of theobromine in order of visits was 20, 40, 40, 30, 40, 30 and 15 grains.

CASE 18 (M. G., a man, aged 56).—The diagnosis was arteriosclerosis, enlarged heart, coronary thrombosis, regular sinus rhythm. The habitual status was pain 3 +. The duration of study was 120 weeks. The doses of theobromine in order of visits were 20, 40, 20, 30, 15, 15, 15, 30, 30 and 40 grains.

CASE 19 (C. E., a man, aged 68).—The diagnosis was arteriosclerosis, enlarged heart, coronary sclerosis, regular sinus rhythm with ventricular premature contractions. The habitual status was pain 3 +. The duration of study was ninety-seven weeks. The doses of theobromine in order of visits were 30 grains for the first four visits; 25, 15, 30, 15 and 30 grains; the following twelve visits, 15 grains.

1300 York Avenue.

TECHNICAL FACTORS AFFECTING THE TUBERCULIN TEST

WALDO E. NELSON, M.D.
CINCINNATI
FLORENCE B. SEIBERT, PH.D.
AND
ESMOND R. LONG, M.D.
PHILADELPHIA

It has been known for some time that tuberculin is extremely heat resistant and that it adheres to glass and other materials after they have been washed and sterilized. Attention has been called to this fact by such workers as Zieler,[1] Smith,[2] Parish and O'Brien[3] and Schick,[4] and similar facts have been demonstrated for other allergens by Rackemann and Simon.[5] Krause,[6] in recalling experiments performed some years ago, has recently called attention to the precautions necessary to secure trustworthy results in immunologic experiments with extracts of tubercle bacilli. We have ourselves repeatedly secured positive reactions in tuberculin-hypersensitive persons when only physiologic solution of sodium chloride (0.85 per cent) was used in syringes previously employed for tuberculin, although these syringes had been washed and boiled and autoclaved. However, it has become increasingly evident to our two groups that insufficient attention is paid to this factor, and we have therefore decided to present jointly further data bearing on this subject.

The danger from such contamination may be illustrated by the following incident: A young physician whose Schick test had been negative several months previously stated that he was now Schick positive. On questioning it was discovered that the Schick test had been made with a syringe previously employed for

From the Children's Hospital Research Foundation and the Department of Pediatrics, Cincinnati, and the Henry Phipps Institute of the University of Pennsylvania, Philadelphia.

1. Zieler, K.: Die Toxinempfindlichkeit der Haut der tuberculös-infizierten Menschen, Deutsche med. Wchnschr. **37**: 2075, 1911.
2. Smith, C. H.: Tuberculin Skin Reactions, Tr. Am. Pediat. Soc. **38**: 81, 1926.
3. Parish, H. J., and O'Brien, R. A.: Heat Stability and "Tenacity" of Tuberculin, Brit. M. J. **1**: 1018 (May 18) 1935.
4. Schick, Béla: Round Table Discussion on Tuberculosis, J. Pediat. **7**: 863 (Dec.) 1935.
5. Rackemann, F. M., and Simon, F. A.: Technic on Intracutaneous Tests and Results of Routine Tests in Normal Persons, J. Allergy **6**: 184 (Jan.) 1935.
6. Krause, A. K., in note on abstract of article by Parish and O'Brien, Am. Rev. Tuberc. **34**: 33 (Oct., abstr. sec.) 1936.

tuberculin. Separate Schick and tuberculin tests were performed with new (previously unused) syringes, and it was demonstrated that he had a positive tuberculin reaction and a negative Schick test.

Following this, simultaneous Schick tests were performed on 125 children with a new syringe for the test on one arm and a syringe previously used for tuberculin and then washed and sterilized on the other arm.

TABLE 1.—*Simultaneous Schick Tests with a New Syringe and with a Syringe Which Had Been Previously Used for Tuberculin, Cleaned and Sterilized*

Number of Tests	Number Positive to Tuberculin (P. P. D.)	Number Giving Positive Schick Test with Both Syringes	Number Giving Falsely Positive Schick Tests; i. e., Positive with "Contaminated" Syringe but Negative with New Syringe
33*	12	12‡	4
92†	..	14	3

* From the Children's Convalescent Home of Cincinnati. Syringe autoclaved.

† From the Preventorium of the Hamilton County Tuberculosis Sanatorium. Syringes boiled. Tests performed by Dr. Helen Mabon.

‡ Seven of these gave a 50 per cent greater reaction with the contaminated syringe than with the new syringe, indicating that part of the reactions have been due to tuberculin. None showed the reverse order of reaction.

In seven instances the test was positive in the arm on which the toxin from the syringe previously used for tuberculin was used, while negative in the other arm on which the same amount of toxin was used from a new syringe. The patients injected were tuberculin positive, and these seven reactions must be looked on as falsely positive Schick tests, in reality tuberculin reactions (table 1).

Other incidents have demonstrated that tuberculin may be transferred by articles other than syringes and that rigid technic is necessary to avoid such contamination. An experiment, initiated at the Henry Phipps Institute primarily for the purpose of determining whether nonspecific reactions may occur from the intracutaneous injection of physiologic solution of sodium chloride (0.85 per cent) containing 0.5 per cent phenol, furnished an excellent example of the marked potency of infinitesimal amounts of tuberculin, the presence of which may be entirely unsuspected. In these tests a new syringe was employed, but it was discovered finally that the bottles had been filled with the various diluent solutions from a pipet that had been used previously for tuberculin and then washed and sterilized in the usual manner (tests 1, 2 and 3 in table 2). The seemingly inconsistent results obtained in these three tests, namely, that the largest percentage of reactions occurred with the "buffer diluent" alone and less with the "buffer diluent + 0.25 per cent phenol" and with the "buffer diluent + 0.5 per cent phenol" are probably explained by the fact that this was the order in which the solutions were pipetted into the bottles. Another means of contaminating nontuberculin solutions with tuberculin is illustrated in tests 4 and 5 in table 2. In these instances bottles of diluent were covered with rubber caps that had been employed previously to stopper tuberculin vials and then cleaned and sterilized. Sufficient tuberculin adhered to the rubber cap to "contaminate" the diluent and produce positive tuberculin reactions in persons hypersensitive to tuberculin.

Examination of the data included in table 2 reveals that reactions to "contaminated diluent" occurred only in those persons who had positive reactions to tuberculin. For this reason further tests were performed with buffered diluent and with physiologic solution of sodium chloride, both with and without 0.25 per cent and 0.5 per cent phenol. Care was taken to use new glassware, rubber and needles. Positive reactions were not obtained from the use of any of these solutions in either positive or negative tuberculin reactors. It seems clear that, with the ordinary method of cleaning, small amounts of tuberculin may remain adherent to glass and rubber, and probably to other materials, in sufficient amounts to produce a positive tuberculin reaction in persons hypersensitive to tuberculin.

METHODS OF CLEANING SYRINGES

A desire to clean syringes adequately naturally leads to the use of alkali, since this was found to be the best solvent for the tuberculin protein and its fractions during their isolation. Accordingly, a syringe that had been used for tuberculin tests for some time was rinsed with 5 per cent sodium hydroxide solution, subsequently with water, and then sterilized. It was filled with the "buffer diluent + 0.25 per cent phenol" that had been shown to give no reactions and, as noted in table 3, test 1, positive reactions were obtained in some reactors to tuberculin (purified protein derivative [P. P. D.]), indicating that this method of cleaning the syringe was inadequate. Another syringe previously employed for tuberculin was immersed in 5 per cent sodium hydroxide over night, rinsed many times with water, sterilized and then filled with "buffer diluent + 0.5 per cent phenol," also shown previously to produce no reactions. Three reactions occurred in nineteen positive reactors (test 3, table 3) to the purified protein derivative, indicating again that this method is not satisfactory for cleaning syringes.

TABLE 2.—*Contamination of Diluting Solutions with Tuberculin by Syringes, Pipets and Rubber Caps; Effect of 0.5 per Cent Phenol in Skin Testing Solutions*

Test	Description of Test	Number of Tests	Number Positive to Tuberculin (P.P.D.)	Number Positive to Diluent Among: Positive Tuberculin Reactors	Number Positive to Diluent Among: Negative Tuberculin Reactors
	Contaminated Diluent				
1*	Buffer diluent contaminated by pipet	86	68	19	0
2*	Buffer diluent + 0.25% phenol contaminated by pipet	86	68	13	0
3*	Buffer diluent + 0.5% phenol contaminated by pipet	50	37	7	0
4†	Buffer diluent contaminated by rubber cap	260	81	27	0
5†	Buffer diluent contaminated by rubber cap and syringe	46	13	9	0
6†	0.85% saline solution contaminated by syringe	21	21	18	..
	Noncontaminated Diluent				
7†	Buffer diluent noncontaminated	7	7	0	..
8*	Buffer diluent + 0.25% phenol noncontaminated	17	12	0	0
9*	Buffer diluent + 0.5% phenol noncontaminated	71	46	0	0
10†	0.85% saline solution noncontaminated	336	97	0	0
11†	0.85% saline solution + 0.25% phenol noncontaminated	30	3	0	0
12†	0.85% saline solution + 0.5% phenol noncontaminated	30	3	0	0

* From the Henry Phipps Institute. The skin tests were performed by Miss Emma Dufour. The diluent solutions were prepared by Mr. John Glenn of the Mulford Laboratories of Sharpe & Dohme.

† From the Children's Hospital Research Foundation. The buffer diluent solution was furnished through the courtesy of Dr. L. T. Clark of Parke, Davis & Co.

The efficacy of cleaning tuberculin syringes with sulfuric acid-dichromate cleaning mixture and by boiling in soap solution has also been tested. Eight simultaneous tests in tuberculin-positive children were performed with known tuberculin-free physiologic solution of sodium chloride. The syringes employed had previously been used for tuberculin and treated as shown in tests 3 to 8, inclusive, in table 3. Positive reactions were obtained with solutions from the syringes that were simply washed and sterilized or even heated for ten minutes in cleaning mixture. However, the syringes seem to have been cleaned adequately if immersed for twelve hours or more in cleaning mixture or boiled in soap solution for ten minutes.

Since, however, such unusual measures are necessary to make certain that syringes previously used for tuberculin are, after cleaning, free from tuberculin particles, it would seem best to keep separate syringes for tuberculin and other types of skin testing solutions.

THE EFFECT OF 0.5 PER CENT PHENOL IN SKIN-TESTING SOLUTIONS ON THE SKIN REACTION

The experiment (tests 1, 2 and 3, in table 2) originally designed to determine whether 0.5 per cent phenol was capable of producing a skin reaction was repeated. New glassware was used throughout in the preparation and injection of the solutions. Buffered diluents and physiologic solutions of sodium chloride were prepared with 0.25 per cent phenol and with 0.5 per cent phenol (tests 7 to 12, inclusive, table 2). No reactions were obtained to any of these solutions with the exception of an occasional papule 2 or 3 mm. in diameter. Such reactions were as frequent with the physiologic solution of sodium chloride as with the 0.5 per cent phenol and were thought to be due to trauma. Furthermore, five persons having 4 plus or severe 3 plus reactions with tuberculin and at the same time small reactions in the other arm with a buffer diluent containing 0.25 per cent phenol given from a syringe previously used for tuberculin were retested one week later with the control solution. This time a new syringe and needle were used and no reactions occurred. In order to ascertain whether free alcohol on the injected surface might increase the likelihood of nonspecific small reactions, simultaneous tests were performed with physiologic solution of sodium chloride and with physiologic solution of sodium chloride + 0.5 per cent phenol on dry skin surfaces and on skin wet with alcohol. Fifteen children thus received sixty tests. In only one instance was there any reaction after forty-eight hours. This was a papule 2 mm. in diameter from a test with physiologic solution of sodium chloride + 0.5 per cent phenol on a dry arm.

CONFUSION OF THE TERMS PHYSIOLOGIC AND NORMAL SALT SOLUTION

A curious accident indicates the possibility of an unusual source of error. While the experiments described here were in progress, "normal saline" was ordered from the preparation room. There was supplied, however, normal, i. e., molar NaCl (5.8 per cent). This, according to instructions, was put up with and without phenol. All the children tested with these solutions had small reactions with marked redness and slight edema, and twenty-five of thirty-three children who were tested with the hypertonic salt solution + 0.5 per cent phenol had reactions with areas of central necrosis. None of these reactions were larger than 8 mm. in diameter. Similar reactions to hypertonic salt solutions were observed by one of us (F. B. S.[7]) in animals in the early work of crystallizing tuberculin protein. Such small amounts of crystalline protein were obtained at that time that it was impossible to remove all the ammonium sulfate from the preparations before testing. It was, however, possible to distinguish the salt reactions of marked necrosis from the true tuberculin reaction with much edema.

Although the term "normal saline" is rather widely employed to designate physiologic solution of sodium chloride, it would seem safer to use the term "physiologic" or, even better, to specify the percentage of NaCl.

SUMMARY AND CONCLUSIONS

Evidence is presented on the heat stability of tuberculin and the tendency of tuberculin to remain adherent to glassware and rubber. A certain proportion of tuberculin-positive subjects react to the injection of physiologic solution of sodium chloride from syringes previously used for tuberculin and then simply washed and sterilized. The use of pipets and rubber stoppers, previously employed for tuberculin and subsequently cleaned by ordinary methods, may introduce into supposedly tuberculin-free mediums sufficient tuberculin to produce occasional reactions.

The clinical importance of these facts is apparent. When Schick tests were made with syringes previously used for tuberculin and cleaned by ordinary methods, falsely positive Schick tests, in reality tuberculin reactions, were often obtained. The danger in the employment of tuberculin syringes in routine allergy tests, as with pollen proteins, is also apparent.

Phenol in concentrations of 0.25 and 0.5 per cent in physiologic solution of sodium chloride does not cause a reaction simulating the tuberculin reaction.

The most effective methods of cleaning syringes to destroy all traces of tuberculin are boiling in soap solution and prolonged immersion in sulfuric acid-potassium dichromate cleaning fluid. It is probably safer and more practical, however, to use syringes never before used for tuberculin whenever a tuberculin reaction might confuse the result, as in the Schick test or in various protein allergy tests.

TABLE 3.—*Effectiveness of Various Methods of Cleaning Syringes*

Test	Method of Cleaning Syringe in Addition to Sterilization*	Number of Tests in Positive Reactors to Tuberculin	Number of Reactors with Diluent
1†	Rinsed with 5% NaOH	5	2
2†	Immersed in 5% NaOH over night	19	3
3‡	Washed with water	21	18
4†	Heated to fuming for 10 minutes in sulfuric acid cleaning mixture	41	1
5‡	12 hours in sulfuric acid cleaning mixture	21	0
6‡	24 and 36 hours in sulfuric acid cleaning mixture	42	0
7‡	Washed with water and boiled in soap solution	21	0
8‡	Boiled in soap solution, plus 12, 24 and 36 hours in sulfuric acid cleaning mixture	63	0

* The following solutions were used: Test 1, buffer diluent + 0.25% phenol; test 2, buffer diluent + 0.5% phenol; tests 3 to 7 inclusive, 0.85% saline solution.

† From the Henry Phipps Institute. The skin tests were performed by Miss Emma Dufour.

‡ From the Children's Hospital Research Foundation.

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ZINC SULFATE PROPHYLAXIS IN POLIOMYELITIS

E. W. SCHULTZ, M.D.
AND
L. P. GEBHARDT, M.A.
STANFORD UNIVERSITY, CALIF.

The increasing number of inquiries coming from physicians in various sections of the country makes it desirable to publish at this time a note on the results of recent work on chemoprophylaxis in experimental poliomyelitis and to suggest a procedure which may hold something of practical value in controlling the spread of this disease in man during epidemic periods.

The more fundamental aspects of the disease which initiated these studies have been summarized by one of us in an earlier article in THE JOURNAL.[1] The chief facts that need to be carried in mind to follow the logic of this new approach are briefly as follows:

1. The disease is caused by a highly neurotropic virus, which in size is among the smallest of known ultramicroscopic viruses.[2]

2. In monkeys, and probably in man also, the virus reaches the central nervous system by way of the olfactory nerve. Complete section of both olfactory tracts in monkeys definitely prevents invasion of the central nervous system by virus subsequently instilled intranasally.[3]

3. Virus reaching any part of the nervous system, either peripheral or central, travels by axonal paths, probably largely or entirely inside the protoplasmic substance of neurons. This conclusion is supported by the effect of sectioning nerve paths,[4] by the results of sampling different parts of the nervous system during various stages of the infection,[5] by the appearance of intranuclear inclusion bodies in some of the nerve cells [6] and by the fact that nerve cell degeneration is primary and largely independent of the inflammatory reactions seen in the fully developed disease.[7] It is supported also by observations which indicate that immune serum is not effective in reducing the severity of the experimental disease in monkeys, and this even when the serum is administered several days before the onset of symptoms.[8] The results of more critical studies on the value of serum therapy in the human disease are in harmony with these observations in animals.[9]

4. So far as is known, the actual portal of entry, which in general is through the olfactory area, may be either the olfactory hairs, the "olfactory cells" (cell bodies of the first neurons), which lie quite superficially in the olfactory mucosa, or the perineural spaces of the olfactory nerves, or some combinations of these. Whichever of these it may be, it is quite clear from recent experimental studies that immune serum even in very large doses is not significantly effective in preventing infection with virus which is subsequently administered by the nasal route.[10] This suggests that it is not necessary for the virus to pass a barrier of immune serum to reach its destination in the central nervous system.

5. Vaccines also have not proved significantly effective in establishing resistance against infection by the intranasal route.[11] The action of vaccines, even of living vaccines, seems to be limited largely or entirely to the stimulation of antibody formation, but, as has already been pointed out, humoral antibodies do not in themselves provide an effective barrier against either invasion or the subsequent dissemination of the virus in the nervous system. When a nonliving (inactivated) vaccine is used even the stimulus to antibody formation tends to drop out of the picture.

6. Acquired active immunity to this disease seems to depend primarily on some kind of modification of the protoplasm of the nerve cell, a modification which is brought about only by intimate contact of the cell with the virus.[12] However, thus far no method has been found which, in monkeys at least, will provide this intimate contact without also producing paralysis.

7. Although naturally acquired active immunity to poliomyelitis is generally associated with humoral antibodies, these seem to constitute merely an adventitious by-product of the infection and are probably largely the result of a reaction to virus which has left its natural nervous channels and come in contact with the antibody-producing mechanism of the body.[13]

8. Many normal adults without knowledge of a previous exposure to poliomyelitis show antibodies for the virus in their blood, and this sometimes in high concentrations,[13b] but if the presence of such antibodies in normal persons is always associated with an acquired active immunity to this disease, which appears not to be true,[14] they should probably be regarded as merely indicators of an earlier infection and not so much as active participants in the state of resistance.

From the Department of Bacteriology and Experimental Pathology, Stanford University School of Medicine.

The investigations on which this report is based were made possible by grants from the President's Birthday Ball Commission for Infantile Paralysis Research.

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13. (*a*) Footnote 12. (*b*) For a review see: Harmon, P. H., and Harkins, H. N.: The Significance of Neutralizing Substances in Resistance and Recovery from Poliomyelitis, J. A. M. A. **107:** 552 (Aug. 22) 1936.

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In short, a fuller understanding of the pathogenesis of this disease has not only served to explain the uncertain results that have been obtained with serums and vaccines but left the profession also with comparatively little hope of controlling the disease by such orthodox means. The present status of our knowledge of this disease, therefore, indicates that the only real hope of bringing it under control lies in modifying the normal portal of entrance by some measure which will insure at least temporary protection to the susceptible individual.

The idea that certain chemicals applied to the olfactory mucosa might in some way modify its permeability to the virus seems to have occurred to three independent groups of workers about the same time. In May 1935 Armstrong and Harrison [15] of the National Institute of Health in Washington reported that monkeys treated intranasally with a 4 per cent sodium aluminum sulfate (alum) solution exhibited a high incidence of resistance to subsequent intranasal instillation of virus. Some months later, Sabin, Olitsky and Cox [16] of the Rockefeller Institute confirmed these observations and reported that 4 per cent tannic acid also exercises a protective action. Early in 1935, after making a study of the value of serums and vaccines in preventing the experimental disease and having before us earlier observations which indicated that preliminary intranasal irrigation with phosphate buffer solutions of different p_H influences differently experimental infection by the intranasal route,[17] we began carrying out a few small experiments to elicit whether some degree of protection might be obtained against this disease by means of chemicals that might in some way decrease the permeability of the olfactory area. The results of initial tests in which we used tannic acid did not appear especially encouraging, and so we turned our attention to other agents, among them trinitrophenol (picric acid), paranitrophenol, trinitrocresol and mercurochrome, which we thought might modify the portal by their staining or some other local action. All those mentioned were found to exercise a definite protective action, but what came as a great surprise to us was the duration of the resistance induced by at least one of these agents. Feb. 5, 1936, we reported [18] to the Pacific Coast Section of the Society for Experimental Biology and Medicine the important fact that monkeys given several successive daily intranasal washes with picric acid may without further treatment remain resistant to repeated instillations of virus for more than a month. Several weeks later (February 28) a paper by Armstrong and Harrison [19] appeared, also testifying to the protective action of picric acid. Their results were in all essentials like ours except that they did not determine the duration of the protection that the picric acid had afforded.

Thus far we have tested the protective value of forty chemical agents. We undertook to test this many in order to determine as fully as possible the range of substances which may convey a more or less well defined protection against subsequent intranasal instillations of virus in monkeys. The results will be published in full later. In this paper we wish merely to announce that out of the array of substances which we have tested there is one, namely, zinc sulfate, which because of its simple composition, relatively low toxicity and surprisingly high protective action in monkeys seems to deserve a trial in man. Because of the remarkably uniform results obtained in our initial experiments we proceeded to make a more exhaustive study of this agent than we have of the others. More than 240 animals have now been treated intranasally with different concentrations of zinc sulfate in solution, administered a varying number of times and at different intervals of time, and the resistance of these test animals has been compared with a total of nearly 300 untreated controls.

We may summarize the results very briefly by saying that two or three successive daily intranasal sprays with a 1 per cent solution of zinc sulfate in physiologic solution of sodium chloride (0.9 per cent NaCl) will generally protect all, or nearly all, of the animals so treated against virus administered one month after the treatments have been applied. This degree of protection is exhibited under sufficiently heavy instillations of virus to bring down about 90 per cent of the controls. Zinc sulfate affords not only a higher percentage of protection in monkeys than picric acid, or picric-alum in equivalent concentrations, but also a more lasting resistance.[20] Many of our treated animals have survived repeated virus instillations for two and even three months, following one or more intranasal applications of the zinc sulfate solution. In an experiment now in progress, twelve monkeys were each given one intranasal spray with a 1 per cent solution of zinc sulfate in physiologic solution of sodium chloride. Virus instillations were begun a week later and have been kept up on five successive days each week for seven weeks to date; two additional sprays with zinc sulfate two weeks and four weeks, respectively, after the first treatment have punctuated these virus instillations, the latter being continued without further treatment twenty-seven days after the last spraying with zinc sulfate. Thus far, only two of the animals have succumbed to poliomyelitis, while the disease has developed in all of the eleven controls with which we started the experiment. In another experiment, in which eight monkeys were given a single intranasal spray with a solution containing 1 per cent zinc sulfate and a local anesthetic of 0.5 per cent pontocaine[21] (para-butylaminobenzoyldimethylaminoethanol hydrochloride) and without further treatment were given seven virus instillations from twenty-five to thirty-two days later, seven survived the virus instillations, while all of the eight controls became infected.

The remarkable protection yielded by this simple and relatively nontoxic agent in animals suggests the desirability of carrying the investigation over to man. We say "investigation" advisedly, for it does not necessarily follow that the results which have been obtained in monkeys apply equally in man. Therefore, with the most important question still to be answered—that of its effectiveness in man—there must be no relaxation of the principles that must guide a research in carrying

15. Armstrong, Charles, and Harrison, W. T.: Prevention of Intranasally Inoculated Poliomyelitis of Monkeys by the Instillation of Alum into the Nostrils, Pub. Health Rep. **50:** 725 (May 31) 1935.

16. Sabin, A. B.; Olitsky, P. K., and Cox, H. R.: Protective Action of Certain Chemicals Against Infection of Monkeys with Nasally Instilled Poliomyelitis Virus, Proc. 37th annual meeting of Society of American Bacteriologists, New York, Dec. 26, 1935 (abstr., J. Bact. **31:** 35 [Jan.] 1936); J. Exper. Med. **63:** 877 (June) 1936.

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18. Schultz, E. W., and Gebhardt, L. P.: Prevention of Intranasally Inoculated Poliomyelitis in Monkeys by Previous Intranasal Irrigation of Chemical Agents, Proc. Soc. Exper. Biol. & Med. **34:** 133 (March) 1936; Chemoprophylaxis of Poliomyelitis, California & West. Med. **45:** 138 (Aug.) 1936.

19. Armstrong, Charles, and Harrison, W. T.: Prevention of Experimental Intranasal Infection with Certain Neurotropic Viruses by Means of Chemicals Instilled into the Nostrils, Pub. Health Rep. **51:** 203 (Feb. 28) 1936.

20. Schultz, E. W., and Gebhardt, L. P.: Zinc Sulfate as a Chemoprophylactic Agent in Experimental Poliomyelitis, Proc. Soc. Exper. Biol. & Med. **35:** 524 (Jan.) 1937.

21. Pontocaine is a product of the Winthrop Chemical Company.

the investigation over to man, for, unless great care is exercised, no really helpful information will be likely to come out of such further work. In a critical review of the application of picric-alum solution in Alabama last summer, Armstrong [22] points out the pitfalls that beset a satisfactory field test. The observations that he presents in this paper make it very clear that the application of a prophylactic measure such as this must be kept entirely in the hands of those who are fully competent to apply it properly. It is not a prophylactic measure which can be turned over to the public for self administration. It is already known that in order to be effective the agent must be actually applied to the olfactory mucosa and that adequate coverage of this area is not assured by self administration with an ordinary hand atomizer.

With these considerations in mind, we would suggest the following procedure in carrying this investigation over to man:

1. The use of a solution containing 1 per cent zinc sulfate, 0.5 per cent sodium chloride and 1 per cent local anesthetic (pontocaine) as suggested.

2. The solution should be prepared with U. S. P. zinc sulfate, U. S. P. sodium chloride and distilled water.

3. It should be applied at least once every two weeks during times when the risk of infection is great. A more desirable procedure would be to apply the agent on two or three successive days and once every two weeks thereafter. The latter would naturally prove more difficult to carry out in actual practice.

4. It should be applied with an atomizer equipped with a suitable tip and in accordance with the technic described by Dr. Max Peet in this issue of THE JOURNAL.[23]

5. Since the zinc sulfate solution thoroughly applied in this manner may be somewhat painful, Dr. Peet suggested several months ago that we determine whether the addition of 0.5 per cent pontocaine to the zinc sulfate solution detracts in any way from its protective action. From the results of tests on thirty-two monkeys treated with a solution containing 1 per cent zinc sulfate and 0.5 per cent pontocaine we can say definitely that pontocaine in no way detracts from the protective action of the zinc sulfate. The influence of other local anesthetics on the prophylactic action of this agent are now being studied by us.

6. The prophylactic zinc sulfate mixture should be administered under the auspices and supervision of national, state or local health organizations, aided by members of the medical profession who have been instructed in the special technic that should be followed. This calls for some previous organization of local health forces.

7. A record should be kept in the local health office of all persons treated. These should bear the name, age, address of the person treated, dates of all treatments and a notation of any anatomic conditions in the nasal passages which may have interfered with a satisfactory application of the solution. The general health of the individual should also be noted.

8. Those who supervise the treatments should be alert to any possible side actions or important harmful local or general effects. While we have not observed any noteworthy gross or microscopic changes in the nasal mucous membranes of monkeys treated repeatedly with zinc sulfate other than a mild grade of inflammation, such as may be seen at times even in untreated monkeys, it nevertheless seems important to suggest alertness to any effects which may contraindicate the general use of this agent or agents if pontocaine is included in the solution. Although there is no good reason to believe that zinc sulfate, in the small amounts required to cover the olfactory area, would produce any undesirable or harmful effects, either local or general, idiosyncrasies should be kept in mind.

9. Any objectionable or undesirable effects from the treatment should be reported to the local health officer, who should enter the information on the card and take such steps as may seem desirable.

10. In measuring the results later, only those persons who have received adequate treatments under competent supervision and for whom there is a record of treatment on file should be considered as having received valid treatments. Claims of self administration of the solution should not be regarded as valid.

The first practical human application of any such laboratory observation as this must of necessity be in the nature of an investigation, and unless this part of the work is carried out with care it is unlikely that any significant additional information will be obtained from such field application. While further laboratory studies may in time lead to a more satisfactory procedure, the immediate task before the profession is to make the best possible use of the most promising practical measure now available for the control of this disease.

22. Armstrong, Charles: Experience with the Picric Acid-Alum Spray in the Prevention of Poliomyelitis in Alabama, 1936, Am. J. Pub. Health **27**: 103 (Feb.) 1937.

23. Peet, M. M.; Echols, D. H., and Richter, H. J.: The Chemical Prophylaxis for Poliomyelitis: The Technic of Applying Zinc Sulfate Intranasally, this issue, p. 2184.

THE CHEMICAL PROPHYLAXIS FOR POLIOMYELITIS

THE TECHNIC OF APPLYING ZINC SULFATE INTRANASALLY

MAX M. PEET, M.D.
DEAN H. ECHOLS, M.D.
AND
HARRY J. RICHTER, M.D.
ANN ARBOR, MICH.

The recent discovery that certain chemicals applied to the olfactory area of the nose in monkeys gives a temporary immunity against subsequent instillations of an active poliomyelitis virus is the first definite evidence that this disease can be prevented and offers the hope that similar prophylactic treatment in children will likewise protect them. In 1935 Armstrong and Harrison [1] of the United States Public Health Service reported that monkeys could be protected against intranasal inoculations of poliomyelitis virus by previous douching of the nose with solutions of alum, trinitrophenol (picric acid) or a combination of the two. A rather extensive field application of this type of prevention [2] was made in the summer of 1936, but the nasal spray applications were generally carried out in such a manner as to indicate, in the light of later work, that the majority of the children received no protection.

From the Division of Neurosurgery and the Department of Otolaryngology, University of Michigan Medical School.

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1. Armstrong, Charles, and Harrison, W. T.: Prevention of Intranasally Inoculated Poliomyelitis of Monkeys by Instillation of Alum into Nostrils, Pub. Health Rep. **50**: 725 (May 31) 1935.

2. Armstrong, Charles: Experience with Picric Acid-Alum Spray in Prevention of Poliomyelitis in Alabama, 1936, Am. J. Pub. Health **27**: 103 (Feb.) 1937.

In 1936 Schultz and Gebhardt [3] showed that a solution of zinc sulfate gave a more lasting and a higher degree of protection than any other chemical of a long list, including alum and picric acid. The demonstration by Schultz and Gebhardt [4] that a single spraying of 1 per cent zinc sulfate protects an animal for at least three weeks against repeated intranasal instillations of an active virus increased the practicability of applying chemical prophylaxis to human beings.

This experimental work of Armstrong and Schultz now offers the first definite hope of controlling infantile paralysis, since the various vaccines that were advocated as protection in human beings have completely failed to protect monkeys against an intranasal inoculation of the virus. Extensive research work has shown that the virus probably enters the body only through the olfactory nerves.[5] Intracranial division of these nerves completely protects the monkeys against subsequent intranasal inoculations of the virus. This demonstration that the virus enters only through the olfactory nerves, combined with the proof that a 1 per cent zinc sulfate solution so modifies the portal of entry that the virus cannot pass, provides a definite lead for extensive field trials in the prevention of poliomyelitis in children.

Several questions are immediately presented: First, will zinc sulfate be as effective in protecting human beings as monkeys? This can be determined only by actual clinical use during an epidemic. Second, will the application of this prophylactic measure be free from danger? Zinc is a harmless metal, and authorities agree that there is no evidence of the existence of chronic zinc poisoning. Zinc sulfate has long been used in diseases of the eye and nose without a single instance of serious harm resulting. With such a weak solution as 1 per cent, the strength recommended for nasal instillation, and in the small quantity used, we feel certain that no serious sequelae will result. However, it was found that when zinc sulfate was actually applied to the olfactory area it produced a severe burning or smarting sensation with coryza and in most subjects a severe headache, which lasted for several hours. Zinc sulfate introduced into the lower portion of the nose does not produce such symptoms. It is only when it is applied to the olfactory area that this pain results. While the probable protection afforded would justify this discomfort, it was felt advisable to eliminate the pain as much as possible. It was found that the local anesthetic pontocaine hydrochloride, added to the zinc sulfate solution, would minimize and in many cases completely eliminate the discomfort that follows high nasal instillations of 1 per cent zinc sulfate alone. Various percentages of the local anesthetic were tried. Five-tenths per cent pontocaine gave considerable relief, but a 1 per cent solution was much more effective, and in twenty of a group of twenty-five subjects little or no real discomfort was noted. However, a few adults complained of a dull headache of from one to several hours' duration after the immediate effect of the anesthetic had disappeared. Children were less adversely affected by the zinc sulfate, and in none of the children tested was headache noted when the 1 per cent pontocaine was added to the spray. The burning or smarting sensation felt immediately after the instillation of 1 per cent zinc sulfate without pontocaine was not observed when the local anesthetic was used.

A careful review of the literature fails to disclose any instance of pontocaine poisoning. The probabilities are that in a very wide application of this treatment individuals may be found who do have an idiosyncrasy to this anesthetic. However, even in susceptible persons one would not expect serious reactions, since the anesthetic is applied only on the surface, in a dilute solution, and in a total quantity of not more than 2 cc. The local anesthetic could, of course, be applied to the olfactory area as a surface spray before the application of the zinc sulfate. Such a procedure is no more effective and has certain disadvantages, especially in an extensive field application such as would be necessary in a threatened epidemic. Two intranasal applications would require double the time for their administration and certainly in small children it would be much simpler to get cooperation for a single spraying than for two. We therefore advise the use of a solution containing 1 per cent zinc sulfate, 1 per cent pontocaine hydrochloride and 0.5 per cent sodium chloride (to make the solution more nearly isotonic).

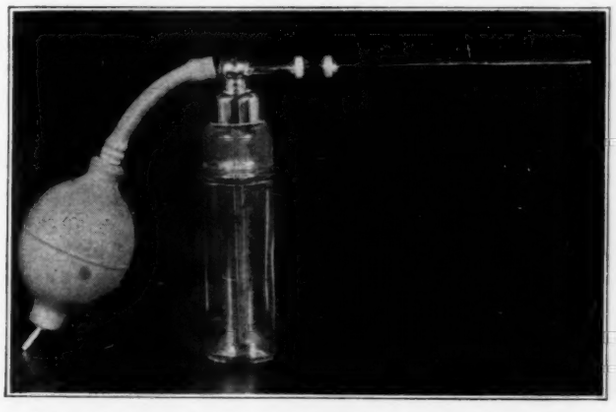

Fig. 1.—The type of atomizer recommended for spraying the roof of the nose.

The question naturally arises Does the zinc sulfate and pontocaine mixture have any harmful effect on the olfactory nerves? Careful investigation of this problem has been undertaken. A group of medical students were carefully tested by Elsberg's [6] method of quantitative olfactometry before and after the zinc sulfate spray or the zinc sulfate and pontocaine spray had been applied to the olfactory area. When the solution has been properly applied to the upper nasal mucous membrane the sense of smell is temporarily lost, or at least impaired, but always returns to normal in a week to two weeks. The rapidity of recovery is dependent on the number of consecutive days the zinc sulfate has been used.[7]

The actual application of the zinc sulfate solution to the olfactory area has been found more difficult than was anticipated. It is apparently much simpler to cover the olfactory area in monkeys than in human beings. This we have demonstrated by spraying both monkeys and children with radiopaque substances such as skiodan and thorium dioxide sol,[8] using an ordinary atom-

3. Schultz, E. W., and Gebhardt, L. P.: Prevention of Intranasally Inoculated Poliomyelitis in Monkeys by Previous Intranasal Irrigation with Chemical Agents, Proc. Soc. Exper. Biol. & Med. **34**: 133 (March) 1936.

4. Schultz, E. W., and Gebhardt, L. P.: Zinc Sulfate Prophylaxis in Poliomyelitis, THE JOURNAL, this issue, p. 2182.

5. Schultz, E. W., and Gebhardt, L. P.: Olfactory Tract and Poliomyelitis, Proc. Soc. Exper. Biol. & Med. **31**: 728 (March) 1934. Brodie, Maurice, and Elvidge, A. R.: The Portal of Entry and Transmission of the Virus of Poliomyelitis, Science **79**: 235 (March 9) 1934. Lennette, E. H., and Hudson, N. P.: Relation of Olfactory Tracts to Intravenous Route of Infection in Experimental Poliomyelitis, Proc. Soc. Exper. Biol. & Med. **32**: 1444 (June) 1935.

6. Elsberg, C. A., and Levy, Irwin: Sense of Smell; New and Simple Method of Quantitative Olfactometry, Bull. Neurol. Inst. New York **4**: 1 (March) 1935.

7. Echols, D. H.; Richter, H. J., and Peet, M. M.: The Effect of Zinc Sulfate on the Sense of Smell, Univ. Hosp. Bull. **3**: 32 (May) 1937.

8. Because of the radioactivity of thorium dioxide sol we did not use children who had a life expectancy of more than one year.

izer. With the monkeys' heads tilted slightly backward, the olfactory area was thoroughly covered. However, in children, the radiopaque material did not regularly reach the cribriform plate when applied in an identical manner. With the patient held in the Proetz position (patient on the back with the head hanging over the edge of the table) thorium dioxide sol sprayed by the

Fig. 2.—Proper application of the spray.

ordinary method would reach the olfactory area in some children but in many others it would not. Shrinkage of the nasal mucous membrane preliminary to spraying did not always aid in reaching the olfactory area. Direct nasal examination after spraying a large number of children with methylene blue showed that in practically all instances the solution did not go above the middle turbinate if an ordinary atomizer was used with the tip of the spray introduced only slightly within the nostril. It was this type of spraying that was used extensively during the summer of 1936 in Alabama, and we now feel convinced that a large proportion of the children did not receive adequate prophylactic treatment. From our experiments in which radiopaque substances and certain dyes were used, it is evident that the spray must be applied directly to the olfactory area. Such application can be made under direct vision with an atomizer [9] with a long, narrow metal tip (fig. 1).

Nasal douching with the head in the Proetz position might be as effective in some children as a properly applied spray. However, it would require larger quantities of the solution with the probability that some of the anesthetic would enter the accessory sinuses and pharynx with the possibility that the cough reflex might be abolished, thus predisposing to pneumonia. The Proetz position with instillation of zinc sulfate by dropper may of necessity be used when small children are so uncooperative that insertion of the nasal spray tip is impossible. Under these circumstances the pontocaine should be omitted. The child should be kept in the head-down position for about two minutes.

We recommend the following method of application: The subject is seated and an attendant holds the head tilted backward about 45 degrees (fig. 2). This is the usual position for a nasal examination. A speculum is introduced into the naris and under direct vision the spray tip is inserted upward along the septum until definitely past the middle turbinate (fig. 3). If it impinges on the roof of the nose it is slightly withdrawn. The bulb is squeezed the number of times required to introduce 1 cc. of solution. This amount, according to our x-ray and necropsy evidence, completely covers the olfactory area. A similar procedure is then carried out on the opposite side of the nose. Loss of the olfactory sense is thus obtained.

Only slight discomfort is felt when the spray tip is passed through the narrow cleft between the middle turbinate and the septum or when it touches the roof of the nose. If the nasal passage is found occluded on direct inspection the nasal mucous membrane should be shrunken by the application of ephedrine or benzedrine inhalant preliminary to the insertion of the spray tip. A power sprayer can be used instead of the hand bulb but should not deliver more than a few pounds of pressure. The quantity delivered by the power sprayer should be definitely determined and not more than 1 cc. of the solution introduced into each side of the nose.

According to the experimental work of Schultz, a single spray of zinc sulfate and pontocaine is sufficient to protect animals for at least two weeks. However, in our experiments on man we have repeated this spray for three successive days. Such intensive spraying, while perhaps not necessary, does give greater assurance of complete coverage, since on the first application of the spray there may be small areas covered by tenacious secretions which conceivably would not be present on the same areas on succeeding days. Possibly in an extensive field application of the zinc sulfate for the prevention of poliomyelitis a single spray repeated at intervals of two weeks would be sufficient; however, we recommend daily spraying for three consecutive days, then single sprays at intervals of two weeks.

It is evident that to be effective the spray must be directly applied to the olfactory area. We wish especially to emphasize this point. Ordinary spraying with

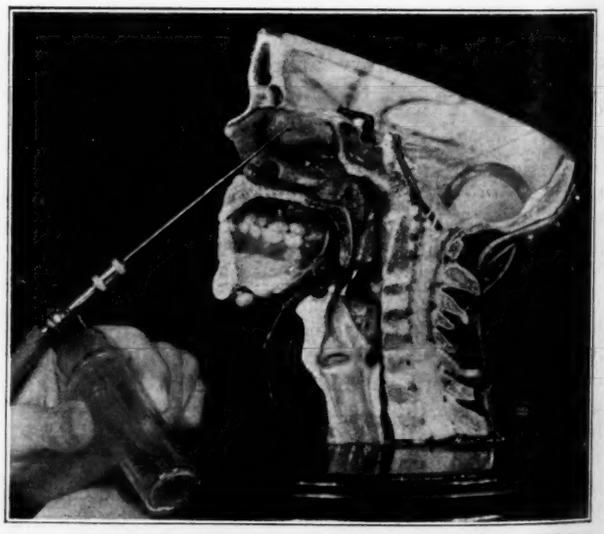

Fig. 3.—Tip of atomizer in proper position.

the atomizer tip introduced below the middle turbinate will not suffice except in isolated instances. Therefore, to offer a child the only protection now known for the prevention of infantile paralysis, the spray solution must be actually applied to the olfactory area, and this can be accomplished only under direct observation with proper equipment and by one trained in this particular

9. The spray used in this work was a DeVilbiss Atomizer No. 156 with spray tip No. 156 N. C.

technic. It is not a procedure which can be applied by the parents or by a physician not familiar with intranasal work.

SUMMARY

The definite proof that a 1 per cent zinc sulfate solution applied to the olfactory area affords a high degree of protection against intranasal instillations of active poliomyelitis virus in monkeys offers definite hope that a similar application will protect human beings from this disease. The actual proof, however, can be determined only by an extensive field trial in the presence of a threatened epidemic.

A 1 per cent zinc sulfate solution can be safely applied to the olfactory area but if used alone produces varying degrees of discomfort, such as burning or smarting in the nose, coryza and more or less severe headache lasting sometimes for several hours. The addition of a local anesthetic such as pontocaine will largely relieve this discomfort. The spray solution recommended is 1 per cent zinc sulfate, 1 per cent pontocaine and 0.5 per cent sodium chloride. This must be applied directly to the olfactory area.

The use of an atomizer with the ordinary tip introduced into the naris is of no value, since in the majority of cases the spray does not pass upward beyond the middle turbinate. A special spray tip must be introduced to the region of the cribriform plate under direct vision. At least 1 cc. of solution should be sprayed over each olfactory area. This procedure can be carried out effectively only by one trained in its technic.

AN ERYSIPELAS-LIKE ERUPTION COMPLICATING DERMATOPHYTOSIS

EUGENE F. TRAUB, M.D.
AND
JESSE A. TOLMACH, M.D.
NEW YORK

The increased amount of attention focused on fungous infections in recent years has given rise to an ever greater number of new studies and observations. It has been interesting to note that in some instances cases of dermatophytosis of the feet are complicated by an eruption which bears great resemblance to erysipelas. The importance of recognizing this condition and differentiating it from true erysipelas is of obvious importance and prompts this report of eight cases.

REPORT OF CASES

CASE 1.—C. W., a man, aged 52, presented by one of us[1] at the March 1935 meeting of the New York Dermatological Society, complained of an eruption which had appeared on several occasions over a period of a year. The eruptions were of an erysipelas-like character and usually appeared on the lower part of either leg. Sometimes the two legs were involved at the same time. They were characterized by marked erythema and swelling together with considerable local heat and pain. A few attacks were accompanied by slight constitutional symptoms. The eruption lasted for periods varying from a few weeks to two months, and the patient noticed that walking or standing aggravated the condition. There was a slight amount of scaling and fissuring in the interspaces of the toes of both feet of which the patient was completely unaware. Microscopic examinations confirmed the diagnosis of dermatophytosis of the toe spaces. After repeated cultures we were able to grow Trichophyton interdigitale. Blood cultures were negative. Intradermal tests with trichophytin and oidiomycin were negative after forty-eight hours. Following the injection of trichophytin and oidiomycin, a flare up occurred on the dorsum of the left foot, the disease having been quiescent when the patient was first seen. The patient did not have a rise in temperature at this time. We had considered the erysipelas-like eruption to be an "id" and had expected a positive reaction to the intradermal tests. At the suggestion of Dr. Sulzberger and Dr. Barthel we then decided to repeat the tests and selected sites on the lower portion of the leg and the upper part of the arm. Within ten minutes of the trichophytin injections a wheal with pseudopods and a larger surrounding area of erythema developed in the arm. On the leg, surrounding the site of the trichophytin injection, a large hot, swollen erythematous reaction appeared which definitely simulated the erysipelatous eruption on the dorsum of the foot. The reaction reached its height in thirty minutes and had disappeared at the end of forty-eight hours. Oidiomycin tests were negative. Blood serum obtained from the patient was used for passive transfer tests. A normal control was selected and test sites were prepared. These sites were tested with various types of streptococci and staphylococci and with oidiomycin and trichophythin. Only the site tested with trichophytin gave an immediate positive wheal reaction. Reagins to trichophytin were apparently present in the patient's serum. We treated the patient with a fungus vaccine (Trichophyton interdigitale) every five days. After the fourth injection the left leg and foot were no longer red or swollen. Scaling was still present between the toes.

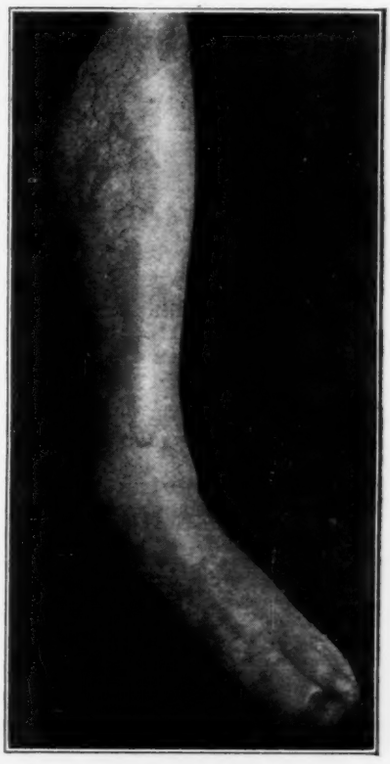

Fig. 1 (case 1).—Left leg, showing the erysipelas-like dermatophytid, which appears close to the primary focus on that foot.

CASE 2.—K. A., a man, aged 35, seen June 1, 1927, complained of recurrent attacks of pain in the left popliteal space, which were followed by eruptions appearing on the left foot, ankle or leg. The attacks had been occuring over a period of twenty years. The first attack occurred while the patient was on a train journey. It was ushered in by pain under the left knee, followed within a few hours by pain, redness and swelling in the left foot. At that time the entire left foot up to a few inches above the ankle was involved. A diagnosis of erysipelas was made. Chills and a high temperature accompanied the attack, which lasted about a week. Fever (from 102 to 104 F.) always was present during the subsequent attacks, all of which were limited to the legs.

When he was seen in June 1927 there was a red area about 1½ inches in diameter just below the tubercle of the right tibia. This area was distinctly infiltrated. The temperature ranged from 102 to 104. Dermatophytosis was present on both feet and mycelia were recovered from the right instep. The patient was seen again in March 1935 at the onset of another attack. At that time the eruption appeared on the left leg.

CASE 3.—H. B., a man, aged 52, seen in November 1923, complained of redness and swelling on the left ankle. The eruption simulated erysipelas in appearance and lasted one week. A second attack occurred in December 1924, the redness, swelling and general symptoms not being as severe as in the previous attack. A specimen from the fourth left toenail was loaded

From the Skin and Cancer Unit, New York Post-Graduate Medical School and Hospital, Columbia University.

1. Traub, E. F.: Dermatophytosis with an Erysipelatous Dermatophytid of the Legs, Arch. Dermat. & Syph. **33**: 196 (Jan.) 1936.

with mycelia. Culture also was positive. In August 1933, the patient appeared again, complaining of an attack which followed a great deal of walking on hard pavements. He complained too of loss of appetite and feverishness. The temperature was 99.6. There was a diffuse redness and swelling involving the left metatarsal region on the dorsal and plantar surfaces. The first and second toes of this foot also were red and swollen. The toenails and interspaces showed evidence of dermatophytosis. The trichophytin and oidiomycin forty-eight hour tests were negative. There was no immediate wheal reaction to the trichophytin injection. Nov. 1, 1935, the patient again appeared at the clinic with an erysipelas-like redness and swelling of the left leg. On this occasion the patient stated that he suffered with chills and fever. Within three days under treatment with boric acid wet dressings the redness and swelling almost entirely subsided.

CASE 4.—B. P., a woman, aged 54, complained of recurring attacks of an eruption on the left foot. The first attack appeared in July 1930 with chills, a temperature of 104 and redness on the dorsum of the left foot. This attack lasted for four days.

Fig. 2 (case 1).—Very slight degree of involvement of the left foot positive in both smear and culture.

Several attacks have occurred since, some severe, necessitating lying in bed for the duration of the attack and some mild with no fever. It is always the left foot and leg that become involved. When seen in February 1931 there was distinct swelling of the left leg without any edema. Fungi were recovered from three of the toenails and spaces of the left foot.

The involvement of the foot consisted of a slight amount of white maceration in several of the interspaces with several tiny vesicles on the toes, the lesions being so trivial that they were difficult to detect. The left leg has remained slightly increased in size with swelling since the first attack occurred.

CASE 5.—J. E., a man, aged 34, first appeared in the clinic Aug. 12, 1935, complaining of recurring eruptions on the left leg for two years. Examination revealed a marked erythema with swelling of the lower third of the leg. There was some scaling and vesiculation on the soles and toes. A diagnosis of dermatophytosis with an erysipelas-like "id" was made. Fungi were demonstrated microscopically in the first toenail on the toes and on the sole of the left foot. Positive reactions to trichophytin and oidiomycin were obtained after forty-eight hours. The patient was presented before the New York Academy of Medicine by one of us.[2]

CASE 6.—P. P., a man, aged 35, appeared in the clinic June 24, 1935, complaining of an eruption on the right hand and right foot. Examination revealed vesicular and scaly lesions on the palm and fingers of the right hand. The interspaces of the toes of both feet showed vesicles, scaling and fissuring. On the dorsum of the right foot there was a large erythematous, slightly swollen area which was diagnosed an erysipelas-like "id." No constitutional symptoms were present. Fungi were demonstrated in the second right toenail. There was no immediate wheal reaction to the trichophytin test. The patient did not return and we were unable to record his forty-eight hour reaction to this test.

CASE 7.—T. D., a woman, aged 39, appeared at the clinic May 20, 1935, complaining of an eruption on the left leg. The eruption had been present for two weeks. On the middle third of the left leg there was an area about 4 inches in diameter which was fairly well circumscribed, reddish and warm to the touch. The patient had had no previous similar attacks. There were no constitutional symptoms. In the toe spaces of both feet there was some scaling and maceration. Fungi were recovered from the first toenail of the left foot. The forty-eight hour trichophytin test was negative. The oidiomycin test was positive (2+).

CASE 8.—A. Q., a man, aged 54, appeared at the clinic Aug. 17, 1936, complaining of recurring attacks of redness and swelling of the left foot. The condition had been occurring over a period of three years. Examination revealed marked redness, heat and swelling of the anterior half of the left foot. Scaling and maceration was present in all the toe spaces. Fungi were demonstrated in the second interspace of the left foot and Trichophyton purpurem was recovered in culture. The forty-eight hour trichophytin test was negative and the oidiomycin test was weakly positive (1+).

COMMENT

Cases of recurring erysipelas of the legs associated with infections of the feet have been reported. McGlasson[3] reported a series of seventeen cases of recurrent erysipelas of the legs with dermatitis of the feet. Amoss[4] reported a series of twenty-three cases of recurring erysipelas of the legs successfully treated with subcutaneous injections of streptococcus filtrate. Both of these authors assumed that streptococci were the causative agents. McGlasson did not find bacteria that could be considered causative agents, and Amoss stated that in a few cases he was able to grow hemolytic streptococci from the débris at the edge of the toenails. The finding of streptococci on the skin as in Amoss's cases raises an important question. In this connection it should be pointed out that Jordan[5] of Jadassohn's clinic reported a series of 150 cases, in which he was able to demonstrate streptococci on the skin of 148. The patients were normal persons without skin lesions. The finding of streptococci on the skin is not necessarily proof that lesions have been caused by these organisms. The point here is not that these recurrent cases of erysipelas cited were not caused by streptococci but rather that some of the cases may have been attributable to fungi. In every one of Amoss's cases he found a fungous infection of the feet. Also a number of McGlasson's patients had tinea pedis. In commenting on McGlasson's paper, Williams[6] in 1926 stated that "McGlasson reported cases with an erysipelatous eruption on the legs and in each case a dermatophytosis of the feet, and that he found no bacteria which could be considered a causative factor. This immediately raises the question whether these cases of apparent erysipelas were not due to the dermatophytosis." At that time Williams stated that the secondary eruptions (the dermatophytids) the outbreak of which may be accompanied by constitutional symptoms such

2. Traub, E. F.: Dermatophytosis: Erysipelatous Dermatophytid, Arch. Dermat. & Syph. **33**: 924 (May) 1936.

3. McGlasson, I. L.: Recurrent Erysipelas of Legs with Dermatitis of Feet, Arch. Dermat. & Syph. **14**: 679 (Dec.) 1926.

4. Amoss, H. L.: Ann. Int. Med. **5**: 500 (Oct.) 1931.

5. Jordan, cited by Zeisler, E. P., in discussion on Mitchell, J. H.: Streptococcic Infection Simulating Ringworm of the Hands and Feet, J. A. M. A. **104**: 1224 (April 6) 1935.

6. Williams, C. M.: Personal communication to the authors.

as fever, headache and prostration, may vary in appearance. In his discussion of our case 1 at the New York Dermatological Society in March 1935, Williams stated:

> In all these cases there is an eruption which resembles erysipelas but in those we have observed there are generally notable differences: the attacks are usually shorter, the prostration is generally less severe and the sharp margin seen in cases of true erysipelas is lacking. In most of the cases the local symptoms of tinea of the feet are mild. In the patient presented today the reaction around the site of the leg inoculated with trichophytin was identical in appearance with the erysipelatous lesion on the dorsum of the foot; this, in my opinion, is conclusive evidence that the erysipelatous eruption was a trichophytid. Of course it is possible that in some cases the tinea pedis serves only as a portal of entry for bacterial organisms, but it is my belief that in this case and in many others the whole process—vesicles in the feet, erysipelatous eruption on the legs, enlargement of and pain in the inguinal glands—is due to a single mycotic organism and its toxins.

In addition to the already well known epidermal trichophytids, other forms have been noted: scarlatiniform exanthems and enanthems, erythrodermas, erythema nodosum-like lesions, migrating phlebitis and urticaria. We have observed also several cases of elephantiasic trichophytid in which one leg was enlarged from 2 to 2½ inches in circumference. The changes in this last variety may be either vascular or lymphatic.

There can be no question that fungi can produce an erysipelas-like eruption. We first called attention to this in our paper read at the ninth international congress at Budapest in 1935.[7] In all our cases a clinically identifiable dermatophytosis of the feet was present. The diagnosis was confirmed by microscopic demonstration of mycelia; invariably this secondary manifestation appeared only a short distance from the primary focus of fungous infection. Fungicidal remedies applied to the focus on the feet always cleared up the complicating eruption, and it was not necessary to resort to any streptococcus or staphylococcus vaccines. Four of the eight cases gave negative forty-eight hour trichophytin reactions. In two cases the test was not performed, one patient did not return after his first visit and in one case it was positive. In our case 1 the positive reaction to trichophytin in passive transfer tests and the negative reaction to oidiomycin and streptococcus extracts indicated a causal relationship between the eruption and the fungous infection. This was further apparently indicated by the immediate wheal and flare reactions to trichophytin. In most of our cases the dermatophytosis of the feet was very mild and sometimes not even noticed by the patient. Three patients reported that the appearance of the erysipelatous eruption was preceded by trauma, such as "a kick in the leg, walking a long distance on hard pavements and standing for a long period of time."

DIFFERENTIATION FROM TRUE ERYSIPELAS

It is sometimes necessary to make a differential diagnosis. The erysipelatous "id" is usually found near a focus of fungous infection. The temperature is no guide, for it may be normal or as high as 104 F. There is not the definitely sharp margin or the progressive spreading of the lesion as in true erysipelas. There may be two separately involved areas present at the same time, such as in the two legs, in cases of erysipelas-like "id." The glazed appearance and brawny induration of erysipelas is not characteristic of these cases. Nor are apparent foci of pyogenic infection found. A history of many and in some cases frequent recurrences is the rule. Constitutional symptoms are comparatively mild and of short duration. Fatalities have not been seen.

SUMMARY

1. This skin manifestation in erysipelas-like dermatophytid complicating dermatophytosis of the feet occurs near a focus of fungous infection and in our cases only in the feet or legs.

2. Fungicidal remedies applied to the focus are sufficient to cure the secondary eruptions without resorting to streptococcus serum, as used in the treatment of true erysipelas.

3. True erysipelas may be differentiated from this type of "id."

4. Trauma such as walking, a long period of standing or a direct blow may possibly initiate the appearance of this eruption.

140 East Fifty-Fourth Street.

7. Traub, E. F., and Tolmach, J. A.: Dermatophytosis: Deliberationes Congressus Dermatologorum Internationalis IX, Budapest, September 1935, pp. 714-719.

RECURRENT ERYSIPELAS-LIKE MANIFESTATIONS OF THE LEGS

THEIR RELATIONSHIP TO FUNGOUS INFECTIONS OF THE FEET

MARION B. SULZBERGER, M.D.
ADOLF ROSTENBERG JR., M.D.
AND
DOROTHY GOETZE, M.D.
NEW YORK

According to modern concepts, pathogenic micro-organisms may produce both systemic and local manifestations of disease by means of various mechanisms. One of these is through the elaboration of toxic products (toxins) that are intrinsically harmful to the tissues of the host. Another mechanism depends on the creation of a state of hypersensitivity to nontoxic, primarily innocuous constituents or products of the invading micro-organisms (bacterial allergens, fungous allergens and the like).

It appears probable today that both of these mechanisms play a part in most infectious diseases. In some diseases (e. g., diphtheria and tetanus) the toxic element undoubtedly predominates. In others (e. g., syphilis, tuberculosis, leprosy and mycotic conditions) the sensitization mechanism is the more important responsible factor. And in still other diseases (e. g., scarlet fever and the pyodermas due to streptococci and to staphylococci) it would appear as though both mechanisms were involved, and to different degrees, varying not only from disease to disease but perhaps even from case to case.

In erysipelas, the streptococcus toxin has always been considered the major responsible agent. While this is undoubtedly correct it is probable that here too sensitization to streptococcus allergens may be of importance. This concept is supported, for example, by the observation of both local and systemic erysipelas-like manifestations occasionally following the injection of foreign proteins or of other nonliving and nontoxic allergens in susceptible individuals. Those who have had some experience with the subcutaneous and particularly with the intracutaneous administration of various allergens (such as trichophytin and tuberculin) have surely

From the Skin and Cancer Unit of the New York Post-Graduate Medical School and Hospital, Columbia University.

encountered local reactions consisting of sterile, nontoxic, highly inflamed erythema and edema with fairly sharply outlined, advancing, circinate borders and accompanied by sudden fever, chills and malaise—in short, the picture of erysipelas. The first experience with such a reaction is necessarily disturbing until the observer is reassured that these manifestations are due not to any accidental infection but to an allergic reaction to the sterile, nontoxic injected extract.

In view of this it must be recognized that pictures identical with or closely simulating erysipelas may not all be due to the action of Streptococcus erysipelatis and its toxins. Thus a doubt must exist as to the etiology of certain erysipelas-like cases, unless the rôle of the streptococcus has been definitely proved.

At dermatologic meetings in the past few years, cases have been reported and demonstrated that resembled recurrent erysipelas and occurred on the lower legs in men suffering from dermatophytosis of the feet.[1] In the presentations and in the discussions, Williams, Traub and one of us stated that these manifestations were not necessarily due to true erysipelas and that another hypothesis might be considered with regard to the pathogenesis and etiology of the disease syndrome presented. This hypothesis suggested that at least some of these cases might be due to the hypersensitivity of the tissues to allergens emanating from the foci of fungus infection on the feet. It was pointed out in support of this hypothesis that these cases presented certain peculiarities in common, notably that the adequate treatment of the dermatophytosis of the feet resulted in the complete disappearance of the erysipelas-like symptoms and also apparently prevented their recurrence. Williams and Traub mentioned that they had observed a series of such cases in which, after successful therapy of the dermatophytosis, there were no recurrences of the formerly frequent erysipelas-like attacks. (In one case of Williams, for example, there had been recurrences at irregular intervals over a period of twenty-one years. Treatment of the dermatophytosis resulted in a cure which is now of over three years' duration.)

Since it is a well known fact that chronic recurrent erysipelatous eruptions not infrequently lead to chronic lymphedema and elephantiasis, it is surely interesting to note that Allen,[2] in his study of the causes of lymphedema of the extremities, considered five out of fifty-seven cases of inflammatory lymphedema to be due to trichophytosis of the feet.

We here wish to present observations on four cases of recurrent erysipelas-like lesions of the lower legs, associated with dermatophytosis of the feet. We believe that this syndrome is sufficiently common to be of some general medical significance and that our observations in these cases may have practical as well as theoretical interest.

REPORT OF CASES

Three of our cases are here reported for the first time. The fourth case (C. W.) was first presented by Traub[3] before the New York Dermatologic Society, and subsequently by Sulzberger[1c] before the Bronx Dermatologic Society.

1. (*a*) Traub, E. F.: Dermatophytosis with an Erysipelatous Dermatophytid of Legs, Arch. Dermat. & Syph. **33**: 196 (Jan.) 1935. (*b*) Traub, E. F., and Tolmach, J. A.: Dermatophytosis, Deliberationes congressus dermatologorum internationalis, IX, 1, Budapest, September, 1935, p. 714. (*c*) Sulzberger, M. B.: Erysipelas-like Dermatophytid, Positive Immediate Wheal Reaction with Trichophytin Reagins, Arch. Dermat. & Syph. **33**: 374 (Feb.) 1935. (*d*) Traub, E. F.: Dermatophytosis; Erysipelatous Dermatophytid, ibid. **33**: 924 (May) 1935.

2. Allen, E. V.: Lymphedema of the Extremities, Arch. Int. Med. **54**: 606 (Oct.) 1934.

3. Traub.[1a] Traub and Tolmach.[1b]

CASE 1.—B. B., a white man, aged 45, a salesman, seen at the Skin and Cancer Unit of the New York Post Graduate Medical School and Hospital June 11, 1936, complained of redness and swelling of the left lower leg for the past three days, and of malaise, fever and generalized aches and pains during the same period. He said that for the past four years he would have what he termed an "attack" about once every two months but that in the past six months he had been having the attacks as often as once every two weeks. He stated that the seizures were characterized by the sudden appearance of redness and swelling of the left lower leg, associated with fever, malaise and generalized aches and pains. The fever had been as high as 104 F. in some instances, and the systemic upset with each attack was sufficiently severe and of sufficient duration to confine the patient to his bed for from two to three days. He further stated that he had noticed that, prior to the onset of each attack, he would experience a feeling of heaviness or a sensation of dragging in the left leg.

Intradermal Reactions in Case 1

Test	Immediate Urticarial Wheal Reactions Read at 10 Minutes	Late Tuberculin Type Papular Reaction Read at 48 Hours
a. Normal skin, arm, trichophytin 1:30, 0.05 cc.	++ wheal	0
b. Normal skin, arm, oidiomycin 1:100, 0.05 cc.	± wheal	0
c. Normal skin, arm, tuberculin 1:1,000, 0.05 cc.	0	2+ - 5-cent piece sized erythema and induration
d. Normal skin, right leg, trichophytin 1:30, 0.05 cc.	++ wheal	0
e. Normal skin, right leg, oidiomycin 1:100, 0.05 cc.	± wheal	0
f. Normal skin, right leg, tuberculin 1:1,000, 0.05 cc.	0	4+ hemorrhage and necrosis
g.* Affected skin, left leg, trichophytin 1:30, 0.05 cc.	0	0
h.* Affected skin, left leg, oidiomycin 1:100, 0.05 cc.	0	0
i.* Affected skin, left leg, tuberculin 1:1,000, 0.05 cc.	0	4+
j.† Affected skin, left leg, trichophytin 1:30, 0.05 cc.	++	0
k.† Affected skin, left leg, oidiomycin 1:100, 0.05 cc.	+	0
l. Normal skin, left leg, trichophytin 1:30, 0.05 cc	++	0
m.‡ Affected skin, left leg, Strep. haemolyt. vaccine, 0.05 cc.	0	0
n.‡ Affected skin, left leg, staphylococcus toxoid (Lederle), 1,000 N.U./cc., 0.05 cc.	0	0
o. Normal skin, right leg, Streptococcus haemolyticus	0	0
p. Normal skin, right leg, staphylococcus toxoid	0	+ - 5-cent piece sized erythema

* These tests were done during attack.
† These tests were done in an interval between attacks.
‡In attack.

These sensations would manifest themselves from six to twelve hours before the onset of the more dramatic symptoms. Incidentally, all his attacks had been confined to the left leg, and the involved area was always the same. The skin involvement began just above the ankle and went about two thirds of the way to the knee, affecting mainly the anterior and anterolateral surfaces. The posterior surfaces had never been involved. The patient stated that for about the same duration as he had experienced the attacks (four years) he had a more or less continuous itching and burning sensation on and between the toes, which had also become more pronounced in the last six months.

The family history was negative.

The past medical history was negative.

On admission to the clinic the patient presented a markedly swollen and reddened left lower leg. The skin over this area was tense, shiny and warm. The affected area began above the ankle and extended about two thirds of the way to the knee and gradually faded into normal skin around the anterolateral aspects of the leg. The toes and the interspaces presented much macerated tissue, with cracks in some of the interspaces.

The general physical examination revealed no abnormalities beyond those described.

The Wassermann and Kahn reactions were negative.

Microscopic examinations of the scrapings from the affected areas between the toes were repeatedly positive for a hyphomycete, with a finding of numerous typical branching mycelia characteristic of a pathogenic fungus. It is perhaps noteworthy that this fungus failed to grow in repeated attempts at culture on suitable mediums.

No streptococcus could be demonstrated extemporaneously or in culture, either from the scrapings between the toes or from the tissue fluid recovered from the leg lesions. The tissue fluid from the leg lesions was also negative for tinea.

Experimental Data.—Both the normal skin and the affected site, during and after an attack, were tested by the intracutaneous injection of 0.05 cc. of the following extracts: trichophytin 1:30, oidiomycin 1:100, old tuberculin (Koch) 1:1,000, vaccine of Streptococcus haemolyticus and staphylococcus toxoid. The injection sites were observed both for the immediate wheal type of reaction at from ten to twenty minutes after injection, and for the late papular tuberculin type of reaction at forty-eight hours after injection. The results of these tests are set forth in the accompanying table.

The results of these injections demonstrate a marked forty-eight hour type reaction to old tuberculin 1:1,000. This finding is not sufficiently unusual to make it necessary to consider it significant in this case.

The significant manifestations seem to be:

(*a*) The complete lack of forty-eight hour tuberculin type of reaction to trichophytin, despite the demonstrated presence of pathogenic fungi in the foot lesions.

(*b*) The strongly positive immediate wheal reaction to trichophytin. This is a finding so unusual in individuals with common fungous disorders who have never received injections of trichophytin that we are inclined to consider it of some as yet inexplicable significance.[4]

Patch tests with undiluted trichophytin and oidiomycin were negative on both the previously affected and the normal skin.

The patient's urticarial wheal reaction to trichophytin was accompanied by specific reagins; i. e., specific Prausnitz-Küstner antibodies to trichophytin were demonstrated in the patient's serum. This result may be considered of significance since Prausnitz-Küstner reagins to trichophytin are a most uncommon finding in patients with uncomplicated forms of fungous infection.[4]

Therapy.—Treatment was begun at the time of the first presentation, June 11, and during an acute attack. It consisted of local treatment of the dermatophytosis of the feet, in the form of potassium permanganate soaks, followed by topical applications first of gentian violet and then of Castellani's basic fuchsin tincture.

In addition to the local treatment, we inaugurated immunologic treatment by means of repeated injections of trichophytin, both intracutaneously and subcutaneously, July 23. To date the patient has received more than twenty intracutaneous and more than twenty subcutaneous injections.

Course.—Between June 11 and July 21 we observed four typical erysipelas-like attacks. The first was the one presented at the time the patient was first seen, June 11. This attack subsided within two days. Subsequent similar attacks appeared June 20, July 9 and July 21.

As stated, trichophytin desensitization was, begun July 23, and since that date there have been no further attacks. This is the longest period of freedom from attacks experienced by the patient since the beginning of his complaint four years ago.

The skin reaction to trichophytin at the time of the last intracutaneous test, November 20, remained unchanged. The immediate wheal reaction was still present in approximately its original intensity, and there was no late, forty-eight hour, tuberculin type, papular reaction. (One of us[5] has had frequent occasion to point out the fact that, as a rule, the immediate wheal type of skin sensitivity cannot be materially reduced by repeated injections, whereas the late tuberculin type of skin response can be regularly diminished by repeated intracutaneous injections of the specific allergens.)

CASE 2.[6]—E. C. H., a white man, aged 44, seen in the private practice of one of us, on April 15, 1935, complained of pain, tenderness and swelling of the left lower leg for the past week. The attack had begun with an oral temperature of 101 F. and had been accompanied by malaise and general symptoms. The patient stated that for the past eleven years he had been suffering from recurrent attacks of a similar nature. The seizure preceding the present one had occurred two months previously and was inaugurated by a chill and temperature of 103. The patient had been confined to a hospital for three weeks during his last attack. The local manifestations had always been confined to the lower anterior portions of the left leg.

On examination there was a more than palm sized, bluish red edematous swelling of the anterior portion of the lower left leg. The involved area faded gradually into the normal surrounding skin. There was tenderness, but the skin surface of the bluish red swelling was of approximately the same temperature as that of the surrounding normal skin. The consistency was firm and elastic.

The left foot exhibited considerable maceration and scaling of the sole and some maceration and several deep fissures between the third, fourth and fifth toes.

The right foot presented less marked evidence of eczematous dermatophytosis, with slight scaliness of the sole and of the interdigital webs.

Extemporaneous microscopic examination of scales from the left foot was positive for tinea, revealing numerous branching mycelia.

Experimental Data.—No cultural studies for fungi or streptococci were made. Intracutaneous skin tests with trichophytin and oidiomycin revealed a moderate immediate wheal and flare reaction to trichophytin and none to oidiomycin.

The late, forty-eight hour, tuberculin type reaction to trichophytin was moderately strong, while the late reaction to oidiomycin was pronounced.

No attempt was made to demonstrate Prausnitz-Küstner reagins in this case.

Therapy.—The dermatophytosis of the feet yielded to topical applications, and the leg lesion subsided rapidly.

Under prophylactic dermatologic measures (nightly soaks with 0.5 per cent sodium thiosulfate solution and the application of a mild antiparasitic ointment) the feet have been kept free from lesions. There has been no recurrence of the erysipelas-like attacks. The period of observation was one year and seven months.

CASE 3.[7]—S. N., a white man, aged 40, first seen in office practice, Nov. 3, 1936, had been confined to bed for the last few days because of a painful swelling of the dorsum of the left foot. The attack had been initiated by headache, malaise, chills and a sharp rise in temperature to 103 F. There was a history of numerous preceding attacks of similar nature and in the same site, about once a year for eight or nine years, and a history of "athlete's foot" of many years' duration and preceding the erysipelas-like attacks.

On examination there was a fairly sharply circumscribed erythematous swelling of all the toes and of the dorsum of the left foot; there was a lymphangitic strand on the lower part of the left leg and a palpable tender lymph gland in the left inguinal area. The interdigital spaces presented maceration and there was a typical papulovesicular dermatophytosis of both soles. The third and fourth interspaces on the left foot were the site of deep fissures.

Under local treatment (soaks with 0.5 per cent aqueous solution of silver nitrate and application of boric acid ointment) the systemic manifestations, the leg lesions and the dermatophytosis rapidly subsided. There was a residual chronic lymphedema of the anterodorsal portion of the left foot and of the dorsa of the toes. On the toes and at the proximal ends of the interspaces there were numerous elevated papillomatous warty excrescences, such as are often found in elephantiasis of the extremities.

4. This subject is discussed further by:
Sulzberger, M. B., and Kerr, Phyllis: Trichophytin Hypersensitiveness of Urticarial Type, with Circulating Antibodies and Passive Transference, J. Allergy **2**: 11 (Nov.) 1930.
Wise, Fred and Sulzberger, M. B.: Urticaria and Hay Fever Due to Trichophytin (Epidermophyton Interdigitale), J. A. M. A. **95**: 1504 (Nov. 15) 1930.
Sulzberger, M. B.: Experiments in Passive Transference of Urticarial Hypersensitiveness to Fungous Extracts, J. Immunol. **23**: 73 (July) 1932.
Tomlinson, W. J.: Trichophytin Hypersensitiveness: Report of a Case with an Immediate or Reaginic Type of Reaction, J. Allergy **6**: 573 (Sept.) 1935.

5. Sulzberger, M. B.: Allergy in Dermatology, J. Allergy **7**: 385 (May) 1936.

6. This case was referred by Dr. DeWitt Stetten of New York.

7. This case was referred by Dr. Edgar Mayer of New York.

Cultures taken from the interdigital fissures on the day of the first examination showed Streptococcus haemolyticus and Staphylococcus aureus. Unfortunately, no mycologic, microscopic or cultural study was made.

The intracutaneous skin tests with trichophytin and oidiomycin revealed a slight immediate wheal and flare reaction to trichophytin and no reaction to oidiomycin.

At forty-eight hours the tuberculin-type papular reaction to trichophytin was scarcely visible, while a moderate to marked reaction was present at the oidiomycin site.

In this case no reagins to trichophytin were demonstrable in the blood serum.

Case 4 is not described in detail here because it has already been reported elsewhere [8] and forms the first case of a report by Traub and Tolmach.[9]

CASE 4.[10]—C. W., a white man, aged 52, seen in the service of Dr. C. M. Williams at the Skin and Cancer Hospital, complained of recurrent erythematous swellings of the anterior portion, sometimes on the right and sometimes on the lower part of the left leg, with considerable local heat, pain and tenderness. There was typical mycotic scaling and maceration of the interspaces of both feet, from which fungus mycelia were repeatedly demonstrated on microscopic examination but failed to grow despite many inoculations on suitable mediums.

Intracutaneous skin tests with trichophytin, oidiomycin and vaccines of staphylococci and streptococci yielded a large immediate wheal and flare reaction solely to the trichophytin and no immediate reactions to the other extracts.

In contrast to the large immediate wheal response, the forty-eight hour tuberculin type reaction to trichophytin was completely negative!

One of us, in immunologic studies of this case, carried out for Drs. Traub and Williams, showed that the intracutaneous injection of 0.1 cc. of trichophytin, when performed on the lower leg, produced not only a wheal and flare up but also an almost palm-sized, hot, erythematous swelling, exactly duplicating the clinical lesion from which the patient suffered. On the other hand, injections of trichophytin in the skin of parts of the body other than the lower leg, and injections of other fungous and bacterial extracts in any skin area did not result in reactions simulating the spontaneous clinical lesions.

Extensive Prausnitz-Küstner experiments were carried out with the serum of this patient. There were no demonstrable reagins to vaccines of streptococci, staphylococci or monilias but a high titer of reagins to trichophytin was repeatedly demonstrable.

The tinea of the feet yielded to classic dermatologic treatment, and to date there have been no recurrences of the erysipelas-like attacks.

COMMENT

The picture of recurrent erysipelas-like attacks of the lower legs is not uncommon, and the association of this syndrome with dermatophytosis has been mentioned by various observers. In addition to cases reported by Traub,[1] Williams and others in the more recent literature.[1] McGlasson,[11] for example, in 1926 devoted an article to the subject of recurrent erysipelas of the legs and dermatitis of the feet. In McGlasson's report of sixteen cases it was assumed that dermatitis of the feet opened portals of entry for the etiologic agent (streptococcus) and that the attacks were those of true recurrent erysipelas. In the later literature the attacks have been regarded as possibly due to a sensitivity to fungi and their products, emanating from the foci of mycotic infection on the feet. It seems to us that both these hypotheses are still distinctly tenable but that certain older experimental and clinical data, and particularly several observations in our present cases, speak rather in fayor of the latter assumption. The sum of these observations seems to lend support to the idea that at least some of these cases are erysipelas-like dermatophytids. In the first place, the older animal experiments of Jadassohn [12] and of one of the present authors [13] have demonstrated the rapid passage of fungous elements from primary foci; secondly, the observations of Jadassohn and Peck [14] and of Peck [15] have shown that, in human beings with dermatophytosis, irritation of foci on the feet produces an absorption and dissemination of the fungous allergens. It is further noteworthy that "ids" of the lower legs in the form of sudden painful swellings (erythema nodosum-like ids) and of lymphangitis and lymphadenitis have previously been described.[16] In one case,[17] fungi were demonstrated even in the inguinal lymph glands.

It is therefore by no means to be excluded that the recurrent painful swellings of the legs in our cases may be due to fungous allergens; and it is, of course, well known that many trichophytids produce general symptoms with sudden fever, malaise, prostration and even generalized glandular swellings and enlargement of the spleen (the systemic disease properly called trichophytosis[16]).

Those manifestations in several of our cases, which seem to speak rather for the dermatophytid nature of the erysipelas-like syndrome, are, above all, the demonstrated alterations in their immunologic response to trichophytin. The negative trichophytin reaction at forty-eight hours, seen in cases 1, 3 and 4, is not entirely unknown but is surely exceptional in cases in which fungi have been demonstrated in lesions of the foot. The same statement applies with at least equal force to the moderate to strong immediate wheal reaction to trichophytin, as exhibited by all four of our cases, and to the finding of Prausnitz-Küstner reagins to trichophytin, which were demonstrable in cases 1 and 4. All these observations certainly evidence an atypical immunologic response to the fungous infection and to the fungous allergens. Moreover, it is possible that the failure of the microscopically demonstrated fungi to grow on culture mediums, as seen in cases 1 and 4, may also be due to the influences of a peculiar immunologic state; for example, to the possible presence of growth inhibiting antibodies.[18]

Further observations that suggest the mycotic and possible "id" nature of the syndrome in our cases are: (*a*) the absence of streptococci on culture (case 1); (*b*) the local exact reproduction of the clinical lesion by means of a specific intracutaneous injection of trichophytin in the skin of the lower leg, and the failure to produce such an erysipelas-like response with trichophytin in distant, nonsensitive skin areas, as well as the failure to produce nonspecific erysipelas-like responses with extracts of various other microorganisms, such as monilia, streptococci and staphylococci [9] (Traub and Tolmach's case, i. e., our case 4); (*c*) the apparent prophylactic effect of specific immunologic procedures in the form of trichophytin injections

8. Traub.[1a] Traub and Tolmach.[1b] Sulzberger.[1c]
9. Traub, E. F., and Tolmach, J. A.: An Erysipelas-like Eruption Complicating Dermatophytosis, J. A. M. A., this issue, p. 2187.
10. Drs. C. M. Williams and Eugene F. Traub gave us permission to include this case.
11. McGlasson, I. L.: Recurrent Erysipelas of the Legs with Dermatitis of the Feet, Arch. Dermat. & Syph. **14**: 679 (Dec.) 1926.
12. Jadassohn, W.: Beitrag zur Genese der Allergie bei den Impfmykosen, Arch. f. Dermat. u. Syph. **153**: 476, 1927.
13. Sulzberger, M. B.: The Pathogenesis of Trichophytids, Arch. Dermat. & Syph. **18**: 891 (Dec.) 1928.
14. Jadassohn, W., and Peck, S. M.: Epidermophytide der Hände, Arch. f. Dermat. u. Syph. **158**: 16, 1929.
15. Peck, S. M.: Epidermophytosis of the Feet and Epidermophytids of the Hands, Arch. Dermat. & Syph. **22**: 40 (July) 1930.
16. Bloch, Bruno: Die Trichophytide, in Jadassohn's Handbuch, Berlin, Julius Springer, **11**: 583, 1928.
17. Sutter, E.: Zur Kenntniss der Trichophytide, Arch. f. Dermat. u. Syph. **127**: 135, 1920.
18. Jessner, M., and Hoffmann, H.: Der Einfluss des Serums Allergischer auf Trichophytonpilze, Arch. f. Dermat. u. Syph. **145**: 187, 1924. Ayres, Samuel, Jr., and Anderson, N. P.: Inhibition of Fungi in Cultures by Blood Serum from Patients with Phytid Eruptions, Arch. Dermat. & Syph. **29**: 537 (April) 1934.

(case 1), and (*d*) to a certain degree, at least, the cessation of erysipelas-like attacks when the dermatophytosis of the feet was kept under control.

All these facts suggest that the erysipelas-like syndrome could be considered a dermatophytid in the form of a local allergic cellulitis and lymphangitis and of a systemic allergic response to fungous products emanating from the dermatophytosis of the feet.

However, it must be borne in mind that, at least in some cases, a fortuitous combination of erysipelas and dermatophytosis may occur, while in others the dermatophytosis may open the portals for the entrance of the streptococcus of erysipelas; in still others the syndrome may be produced by fungi alone or by fungi in combination with streptococci or even by some still unknown other mechanism. It seems to us that our case 3 is one in which the dermatophytosis may have prepared the way for the entrance of the streptococcus, while in cases 1, 2 and 4 no evidence incriminating a streptococcus could be brought forward.

In summing up, we believe that it must remain the problem of future studies to decide as to the exact etiology and pathogenesis of each individual case of the type here under discussion and that it will be essential in the future to demonstrate the presence of Streptococcus erysipelatis in lesions of the leg before it can be concluded that such erysipelas-like syndromes of the lower legs are necessarily true erysipelas.

While our observations only lend additional support to the concept of the existence of erysipelas-like dermatophytids of the lower legs, they seem to prove conclusively a point which is, in itself, not without practical significance; i. e., that, as previously emphasized by Williams,[19] proper and adequate dermatologic management of the existing dermatophytosis of the feet and prevention of its exacerbations will tend to prevent the recurrences of erysipelas-like attacks of the lower legs. Moreover, in consideration of the results in our case 1, it is possible that immunologic treatment with repeated injections of trichophytin may be of some influence in the prophylaxis of the erysipelas-like reactions.

SUMMARY AND CONCLUSIONS

1. The occurrence of erysipelas-like attacks on the lower legs, associated with active dermatophytosis of the feet, is not uncommon.

2. Some of these cases may be recurrent erysipelas-like dermatophytids of the lower legs and not true erysipelas.

3. These cases are likely to present aberrant immunologic responses to trichophytin in the form of (*a*) positive immediate wheal responses to intracutaneous injections, (*b*) a negative or weak forty-eight hour tuberculin type of reaction, and (*c*) the presence of Prausnitz-Küstner reagins to trichophytin. These immunologic peculiarities and the reproduction of the clinical lesion by means of a trichophytin injection (in one case) are regarded as lending support to the hypothesis of the dermatophytid nature of the erysipelas-like syndrome here presented.

4. Whatever the pathogenesis and etiology of the erysipelas-like attacks (whether they are due to streptococci, to fungi, to their combination or to other unrelated agents and factors), the proper and adequate dermatologic treatment of the mycotic disorder of the feet seems to offer an excellent means of preventing recurrences of the erysipelas-like syndrome of the legs.

962 Park Avenue.

19. Traub (footnotes 1*a* and 1*d*).

DINITROPHENOL AND DESICCATED THYROID IN THE TREATMENT OF OBESITY

A COMPREHENSIVE CLINICAL AND LABORATORY STUDY

SAMUEL SIMKINS, M.D.
PHILADELPHIA

(Concluded from page 2117)

SKIN REACTIONS

The most common toxic action observed with dinitrophenol is a skin rash.[81] The incidence reported varies from 15 per cent [82] to 23.4 per cent.[83] There is no way of predicting sensitivity to the drug. The Derrien test is now known to be of no value in this respect.[83] Skin tests are of no value; neither the direct test (patch test, scratch test, intradermal wheal test) nor the indirect or passive transfer test (Prausnitz-Küstner test).[84]

In the present series there was a total of thirty-two patients who showed skin reactions. Of these, a few developed more than one type of skin lesion.

1. Simple pruritus occurred in four patients. It disappeared in three without the medication being discontinued. In the fourth (a patient with vasomotor rhinitis) the dinitrophenol was resumed safely, shortly thereafter. Of the four patients, one had hay fever and one vasomotor rhinitis. One reaction occurred in the fourth week, one in the seventh week, and two in the seventeenth week of continuous dinitrophenol medication.

2. Macular rashes developed in three patients, all within two weeks after the institution of dinitrophenol therapy. In all patients the dinitrophenol was continued, and the rash disappeared spontaneously within three days.

3. Papular and maculopapular rashes developed in twelve patients. One was allergic to many foods and had severe migraine at the time of her menses; another suffered from migraine. The rash was usually papular and developed in the second to the eighth week, persisting from one to five days. Three of the rashes were barely pruritic; nine varied greatly in the degree of pruritus. In two patients the rash appeared twice, several weeks apart. In all twelve patients the rash disappeared spontaneously as the medication was continued.

4. In four patients there was marked swelling and redness of the hands and feet. The time of onset varied greatly. In one it developed after the ingestion of only four 100 mg. capsules. After the lapse of one day, medication was resumed without recurrence of the rash. Another developed marked manifestations in the second week and was able to resume medication after a short lapse. A third patient developed the reaction after three and one-half months of medication. The catholicity of skin reactions to dinitrophenol is well illustrated by this

81. Beebe, N. L.: Colorado Med. **32:** 30 (Jan.) 1935. Dintenfass, Henry: An Ear Complication from Dinitrophenol Medication, J. A. M. A. **102:** 838 (March 17) 1934. Frumess, G. M.: Allergic Reaction to Dinitrophenol, ibid. **102:** 1219 (April 14) 1934. Quick, A. J.: Dangerous Drug Reactions, ibid. **102:** 1419 (April 28) 1934. Nadler, J. E.: Peripheral Neuritis Caused by Prolonged Use of Dinitrophenol, ibid. **105:** 12 (July 6) 1935. Faddersbøll, H.: Nord. med. tidskr. **8:** 1088 (Aug. 25) 1934. Gimsing, T.: Ugesk. f. læger **96:** 527 (May 17) 1934. Noun.[82] Markowitz.[82] Anderson, Reed and Emerson.[83] Jackson and Duvall.[80] Strang and Evans.[119] Tainter, Stockton and Cutting.[84] Beinhauer.[46]

82. Markowitz, J.: Bull. Acad. Med., Toronto **8:** 72 (Jan.) 1935.

83. McGavack, T. H.: California & West. Med. **44:** 77 (Feb.) 1936.

84. Matzger, Edward: Can Sensitivity to Dinitrophenol Be Determined by Skin Tests? J. A. M. A. **103:** 253 (July 28) 1934.

patient, a woman of 28, who developed four types of reactions during an intensive course of dinitrophenol in therapeutic dosage. A generalized pruritic, papular eruption appeared on the fourth day of medication and disappeared spontaneously after a few days. At three and one-half months she developed marked redness and swelling of the hands and feet, which disappeared as soon as the dinitrophenol was omitted. The medication was resumed safely within a few days. A month later there occurred itching of the neck together with redness of the skin, which persisted one week. At five and one-half months she developed several large, painful subcutaneous nodules that disappeared spontaneously after a few days. The fourth patient had tabes and developed urticaria in the fifth week. Two days after the drug was stopped the urticaria disappeared, and the hands and feet became red and swollen. Soreness and tenderness of the hands and feet persisted eleven days after the drug was discontinued.

5. Urticaria occurred in ten patients. In five the rash was generalized; in the remainder the rash was scattered and limited chiefly to the extremities or to the buttocks and chest. Of the first five patients, one suffered an extremely violent febrile reaction, which will be described later; the other four were afebrile. All five rashes developed within the first ten days of medication. Summing up the ten cases, two were continued on the dinitrophenol, even when urticaria had developed, without mishap. Four patients, who had developed urticaria, were shortly afterward given the drug again without recurrence of the rash. Another patient developed prompt recurrence of the urticaria when medication was resumed. The other three patients in the series did not have the drug repeated. Of the ten patients one, who had a few scattered hives during the second week of medication, eventually developed cataracts.

In the series of thirty-two patients who developed skin rashes, there were twenty-nine nonallergic and three allergic (one vasomotor rhinitis, and two allergic to various foods). Of these three, one had migraine. Two others of the thirty-two had migraine. Contrast these figures with the number of allergic patients in the entire series. Of a total of 159 patients, fourteen were allergic (three with hay fever, ten with a history of former urticaria, and one with vasomotor rhinitis), as well as six with migraine. Of the fourteen, only three developed skin manifestations (one pruritus, one maculopapular rash and one urticaria). These results support Matzger's [84] conclusion that dinitrophenol reactions are not allergic in character.

6. In the tenth week of dinitrophenol therapy one patient developed an eruption remarkably simulating pityriasis rosea. The rash disappeared in ten days, without interdiction of the drug.

The incidence of skin reactions was rather high (thirty-two cases in 159, or 20.1 per cent), which compares with McGavack's [83] figures of 23.4 per cent.

ALOPECIA

One patient developed alopecia. A search of the literature discloses no other case report. Hitch and Schwartz [85] have recently reported an exfoliative dermatitis following dinitrophenol therapy, in which a certain degree of alopecia was present:

Mrs. M. C., aged 47, white, who weighed 231 pounds (105 Kg.), took an average of five 100 mg. capsules of sodium dinitrophenol daily between April 5, 1935, and June 21, 1935, with a resultant loss in weight of 32 pounds (14.5 Kg.) and no apparent ill effects. Medication was resumed with three capsules daily on Aug. 30, 1935, at which time she weighed 201 pounds (91 Kg.). September 5 she began to complain of persistent pain in one arm, which grew steadily worse. At that time she noticed that her hair was falling out slightly. September 20 (at which time the dose was four capsules daily) she developed marked edema of the ankles. This condition continued until November 11, when the drug was discontinued. The alopecia became progressively worse. Local treatment for six weeks was of no avail. There was marked scaling and redness of the scalp together with the development of numerous small ulcers. The hair fell out, in clumps, in scattered areas throughout the scalp. The alopecia continued for two months, and then the condition of the scalp began to improve. The hair is gradually growing in, and the scalp is beginning to approach normality in its appearance.

85. Hitch, J. M., and Schwartz, W. F.: Late Toxic Results, Including Dermatitis Exfoliativa, from "Slim," J. A. M. A. **106:** 2130 (June 20) 1936.

URTICARIA

C. C., a white woman, aged 23, who weighed 130 pounds (59 Kg.), took an average of 4½ grains (0.3 Gm.) of sodium dinitrophenol daily between Jan. 22 and March 16, 1935, with no apparent ill effects. The weight loss was slight (5 pounds, 2.3 Kg.). May 6 she resumed medication with the same dosage. On May 12 itching of the thighs developed. The next morning generalized urticaria appeared. The patient felt drowsy and vomited. Epinephrine hydrochloride, 5 minims (0.3 cc.) by hypodermic injection, gave prompt but only temporary relief. May 14, tremendous urticarial lesions appeared, especially involving the wrists and ankles. The hands and feet were immensely swollen and intensely hot and red. Practically the entire body was covered with large wheals. The temperature was 100 F., the pulse 112, the respiration 28, and the blood pressure 112 systolic, 64 diastolic. Examination otherwise was negative. Epinephrine again gave prompt relief. Ephedrine and calcium by mouth were prescribed. The next day the urticaria decreased somewhat. As old lesions disappeared, new ones developed. The temperature and respiration were now normal, but the pulse remained rapid (112). By May 16, nearly all the lesions were gone. New lesions cropped up intermittently for three weeks thereafter, though they were so scattered as to cause very little discomfort.

PERIPHERAL NEURITIS

It is only recently that the rôle of dinitrophenol in the causation of peripheral neuritis has been noted.[86] The striking symptoms are practically always sensory, the legs and feet being affected first, the arms and hands next. Various paresthesias, such as numbness and "pins and needles," develop and after the drug is stopped clear up slowly, within three weeks to two months. Cases of motor weakness, such as foot drop, are rare.[87] The weakness disappears rapidly after the drug is stopped, usually within a week. After the recovery period, the medication may usually be resumed at a lower dosage level without further symptoms.[84] In the author's series there were only four frank cases of peripheral neuritis. The symptoms developed very gradually in all, and only after prolonged medication (from the fourth to the tenth week). The condition persisted for weeks and gradually cleared up after the medication was discontinued.

A very interesting feature is the development, in a few patients, of disturbances of the sensation of taste, or dysgeusia.[88] Five patients developed loss of taste, especially for salt, sweet, sour and the like, as well as numbness and tingling of the tongue, usually within the

86. van Bogaert, M. L.: Bull. et mém. Soc. méd. d. hôp. de Paris **51:** 1393 (Oct. 28) 1935. MacBryde, C. M.: J. Missouri M. A. **33:** 99 (March) 1936. de Châtel and Motika.[87] Nadler.[83] Tainter, Stockton and Cutting.[84] Cogan.[40] Hitch and Schwartz.[85] Epstein and Rosenblum.[88]

87. Hunt, W. D.: Northwest. Med. **33:** 209 (June) 1934. Tainter, Stockton and Cutting.[84]

88. Epstein, Ervin, and Rosenblum, Harold: J. Lab. & Clin. Med. **20:** 1118 (Aug.) 1935. van Bogaert.[86] de Châtel and Motika.[87] Nadler.[83] Tainter, Stockton and Cutting.[84] Jackson and Duvall.[89] Hunt.[87]

fifth to the seventh week. In no case was the drug interdicted. In one patient the loss of taste lasted only two days, in another five days; in the other three patients it persisted several weeks, disappearing spontaneously even though the drug was continued.

BLOOD CHANGES

In view of the close chemical relationship of dinitrophenol to benzene, cases of diffuse bone marrow depression following dinitrophenol therapy might be expected a priori. The common factor in dinitrophenol, aminopyrine, arsphenamine, benzene and so on, is the benzene ring. In animal experiments no apparent changes in red or white blood cells have been noted even when massive doses of dinitrophenol were given over periods as long as six months.[89] The first case of granulopenia following dinitrophenol administration was reported in 1934.[90] Since that time, seven similar cases have been reported,[91] of which two proved fatal.[92] In every one the dosage was nontoxic. Tainter, Cutting and Stockton [43] found no alteration in the fragility of the red cells. One case of urticaria presented petechiae of the legs and feet.[93] In a series of 170 patients no agranulocytosis developed.[34] In the present series no clinical cases of agranulocytosis developed. Eleven patients were studied carefully with repeated, complete blood counts during prolonged courses of dinitrophenol medication, without any significant changes being noted. Hence one must agree with Tainter and his colleagues [34] in their conclusion that dinitrophenol does not affect the blood cells except in rare instances of "some preexisting idiosyncrasy or defective constitution in the individual patient, in whom dinitrophenol or any other drug or toxin may act as a precipitating agent."

MENSTRUAL EDEMA

A subject of intrinsic interest that has not received the attention it merits is menstrual edema. Thomas [94] described two cases of extensive, generalized edema occurring only at the time of the menses. Such a phenomenon is not limited to women with clinically recognizable gland dysfunction but occurs in varying degree in presumably normal individuals.[95] The explanation of the phenomenon—the shift in water balance—is not clear. In the present series eighteen women complained of feeling "bloated" shortly before or during their menses. Of the eighteen, only six gained weight at the time of the catamenia. In the entire series a total of fourteen gained weight at the time of the menses. Ten were given dinitrophenol exclusively, and four 2 grains (0.13 Gm.) of desiccated thyroid daily in addition to the dinitrophenol. The gain in weight was variable, ranging from 2 to 5 pounds (0.9 to 2.3 Kg.). After the menses were over, the increment in weight was usually lost rapidly.

MENSTRUAL CYCLE

There is a marked, though totally unpredictable, action by dinitrophenol on the menstrual cycle in many women. This effect was noted in fifteen patients. While it is true that "most of the menstrual disorders common in the obese are corrected by proper diet alone," [96] the change in menses in many patients is so marked and occurs so soon after the institution of drug therapy (before there has been any significant weight loss) that one must conclude that direct action of the drug is involved. Three patients who had irregular, delayed menses became regular promptly. On the other hand, two whose menses had been perfectly normal became irregular: in one, the catamenia was a week late and scanty; in the other, four days delayed and very profuse. In the latter patient, dysmenorrhea and menstrual headache vanished for the first time in years. In two patients the menses became very scanty, in one very profuse. Four patients began to have early, scanty menses. One patient became totally irregular and one became amenorrheic. In contrast, a young adult, who had been amenorrheic for eighteen months following childbirth, began to menstruate regularly but somewhat scantily.

DINITROPHENOL CATARACTS

The *bête noire* of dinitrophenol therapy is cataracts. It is only slightly more than a year ago that the first reports crept into the literature.[97] Since that time numerous cases have been reported.[98] The pathogenesis is obscure.[99] No case has shown spontaneous resolution. The shortest time reported for the development of cataracts is one month, the longest twenty-one months. The number of cases reported ranges between fifty and a hundred.[100] The actual incidence of cataracts is very difficult to estimate, as there are few reports in the literature of extensive clinical studies of dinitrophenol. Tainter, Stockton and Cutting [34] had one case in 170 patients, Hill one in sixty-eight; [101] I had one in 159. Horner [100] estimates from 0.1 to 1 per cent. Undoubtedly many cases of recent origin have not been linked to dinitrophenol, and in view of the long latent period before the cataracts become clinically manifest and in view of the extremely widespread usage of the drug both with and without medical supervision, a rapidly increasing number of cataracts may be expected in the near future. An interesting feature, which has received only slight attention, is disclosed by a careful study of almost all cases reported in detail. It consists of the fact that patients who developed cataracts are those who, in nearly all cases, had more than one course of dinitrophenol. It is during the second or subsequent course that dimness of vision begins.

Even now, with the evidence pointing to dinitrophenol as the causative agent of these cataracts, many deny the rôle of the drug. As they point out, during the latter part of the World War many workers in

89. Tainter, M. L.; Bergstrom, F. W., and Cutting, W. C.: J. Pharmacol. & Exper. Therap. **53:** 58 (Jan.) 1935. Emge, L. A.; Wulff, L. M. R., and Tainter, M. L.: Proc. Soc. Exper. Biol. & Med. **31:** 152 (Nov.) 1933. Hall, V. E.; Brown, C. A., and Sahyun, M., ibid. **31:** 380 (Dec.) 1933. Hall, Field, Sahyun, Cutting and Tainter.[11] Tainter, Boyes and De Eds.[62] Tainter, Cutting, Wood and Proescher.[44] Tainter and Cutting.[12] Tainter and Cutting.[18] Tainter.[27] Cutting and Tainter.[63] Muntwyler.[17]

90. Hoffman, A. M.; Butt, E. M., and Hickey, N. G.: Neutropenia Following Aminopyrine, J. A. M. A. **102:** 1213 (April 14) 1934.

91. Bohn, S. S.: Agranulocytic Angina Following Ingestion of Dinitrophenol, J. A. M. A. **103:** 249 (July 28) 1934. Imerman, S. W., and Imerman, C. P., ibid. **106:** 1085 (March 28) 1936. Davidson and Shapiro.[40] Silver.[92] Dameshek and Gargill.[92]

92. Silver, Solomon: A New Danger in Dinitrophenol Therapy, J. A. M. A. **103:** 912 (Sept. 22) 1934. Dameshek, William, and Gargill, S. L.: New England J. Med. **211:** 440 (Sept. 6) 1934.

93. Noun, M. H.: Urticaria, Edema and Purpura Following Small Doses of Dinitrophenol, Arch. Dermat. & Syph. **32:** 288 (Aug.) 1935.

94. Thomas, W. A.: Generalized Edema Occurring Only at the Menstrual Period, J. A. M. A. **101:** 1126 (Oct. 7) 1933.

95. Sweeney, J. S.: Menstrual Edema, J. A. M. A. **103:** 234 (July 28) 1934. Lyon and Dunlop.[121]

96. Evans, F. A., and Strang, J. M.: Am. J. M. Sc. **177:** 339 (March) 1929.

97. Boardman, W. W.: Rapidly Developing Cataract After Dinitrophenol, J. A. M. A. **105:** 108 (July 13) 1935. Horner, Jones and Boardman.[103]

98. Shutes, M. H.: Am. J. Ophth. **18:** 752 (Aug.) 1935. Boardman, W. W.: Ann. Int. Med. **9:** 195 (Aug.) 1935. Mann, W. A., Jr.: Cataract Due to Dinitrophenol, Arch. Ophth. **15:** 116 (Jan.) 1936. Boardman, W. W.: California & West. Med. **43:** 118 (Aug.) 1935. Lazar, N. K.: Cataract Following the Use of Dinitrophenol, J. A. M. A. **105:** 794 (Sept. 7) 1935. Kniskern, P. W.: Cataract Following Dinitrophenol, ibid. **105:** 794 (Sept. 7) 1935. Cogan, D. G., and Cogan, F. C.: New England J. Med. **213:** 854 (Oct. 31) 1935. Koch, Lee and Tainter.[98] Cogan.[40] Hill.[101]

99. Differential Diagnosis of Cataract Due to Dinitrophenol, J. A. M. A. **107:** 60 (July 4) 1936. Fuchs: Ophthalmology, ed. 7, Philadelphia, J. B. Lippincott Company, p. 639. Cogan.[40]

100. Horner, W. D.: Cataract Following Dinitrophenol Treatment for Obesity, Arch. Ophth. **16:** 447 (Sept.) 1936.

101. Hill, H. E.: J. Indiana M. A. **29:** 67 (Feb.) 1936.

French munition plants showed toxic symptoms, but there are no records of any cataracts. Moreover, in recent work Horner [102] has found cases in which similar cataracts have occurred without the ingestion of dinitrophneol. "Dinitrophenol can scarcely be the essential factor when identical changes are seen in those who have never taken the drug."

Horner, Jones and Boardman [103] reported one case in which there was transient blurring of vision, which disappeared after a few doses. Bilateral, faint, lenticular opacities were discovered, which did not progress. In the present series, three patients developed intermittent blurring of vision at the beginning of dinitrophenol therapy, which disappeared spontaneously after a few days. To date (fifteen months, seventeen months and twenty-two months after the institution of therapy) no lenticular changes have appeared.

Vitamin C is present in the normal lens in high amounts.[104] With age and cataract formation, the vitamin C diminishes and may become absent.[105] The drop in vitamin C parallels the drop in glutathione content and the drop in its oxidation activity. "The vitamin C content of organs depends on the amount of ascorbic acid fed and decreases as the metabolic rate of the tissue is increased." [106] The metabolic rate of organs is increased by the administration of thyroid extract, and alpha-dinitrophenol. The value of vitamin C may be presumed to lie in the maintenance of a clear lens. Consequently, increased permeability of the capsule [107] may result in lessened vitamin C content of the aqueous and thus predispose to cataract formation. In naphthalene poisoning (cataracts) there is a marked decrease in vitamin C concentration of the lens and aqueous, possibly because of increased permeability of the capsule.[108] Intravenous injection of vitamin C in animals gave conflicting and inconclusive results.[109] In his preliminary report, Josephson [110] gave results of treatment of cataract cases with vitamin C. His treatment employed the intravenous use of vitamin C, in part at least. He reported that the swelling of the lens capsule was reduced and that the lens became more transparent.

DINITROPHENOL CATARACTS

Mrs. M. C., aged 48, was given sodium dinitrophenol, in an average dose of from 300 to 400 mg. daily from July 27 to Oct. 8, 1934, with a loss of weight from 157 pounds (71 Kg.) to 144 pounds (65 Kg.). From Oct. 8, 1934, to March 26, 1935, the drug was discontinued. By this time her weight had regressed to 153 pounds (69 Kg.). Sodium dinitrophenol was again given, in the same dosage, until April 29, 1935, when her weight was 145 pounds (66 Kg.). At that time there were no visual complaints. The drug was then discontinued. Aug. 3, 1935, while bathing at a seaside resort, she became cold and complained of marked chilliness. Within a few minutes, huge urticarial wheals covered the entire body with the exception of the face. The urticaria disappeared within an hour. Three hours later she developed diplopia when she closed her left eye. The condition became gradually worse until September 4, when an ophthalmologist discovered bilateral cataracts. Shortly afterward, dimness of vision began to develop and grew rapidly worse during December. The diplopia (right eye) persisted until vision was completely lost at the end of December 1935.

Dr. O. F. Mershon reported that examination, Sept. 4, 1935, showed the eyes externally entirely normal. Muscle balance was normal for distance and near. The pupils were round, central, and equal, and reacted to light and in accommodation. The vision of each eye was 6/9. Both lenses showed numerous fine white flaky deposits, resembling naphthalene, scattered throughout the cortical substance, the area immediately beneath the capsule being clear. The right eye was more affected than the left. The eyegrounds and vessels were normal. In six weeks there was an increased myopia of 1.50 diopters. The flakes were more pronounced. Vision of each eye was 6/9 — 1. Four weeks later the vision of the right eye was 6/30 and of the left eye 6/12½. No view of the backgrounds was possible. The right lens was a beautiful pearly white color and the flakes in the left eye were much more confluent. Two weeks later the right was matured and the left vision 3/60. There was still a narrow clear area immediately beneath the capsule. Treatment was of no avail. Dr. Luther C. Peter operated on the right eye Dec. 30, 1935, and the patient now has 6/6 — vision in the eye. The left eye has not been operated on. Reexamination of the right eye following cataract extraction showed no retinal lesion.

By Feb. 22, 1936, the left cataract was mature. Only slight light perception was left. The whole lens was now pearly white as the right lens had been and was ready for extraction. On the basis of experimental work already described, I decided to try the effect of large doses of vitamin C on the cataract. Beginning May 18 the patient began to drink 40 ounces of orange juice [111] daily and has continued thus since. Within twelve days perception of light became so sharp as to be annoying. June 26, additional vitamin C therapy was instituted in the form of crystalline vitamin C [112] (ten 50 mg. tablets daily). By July 4 the shiny hard pearliness of the left pupil had become much less marked. The dosage of the tablets was steadily increased until at present (October 1936) she is taking twenty-five 50 mg. tablets (1.25 Gm.) daily in addition to 40 ounces of orange juice daily (about 0.40 Gm. of vitamin C).

There has been a slow, but steady, improvement in both vision and the appearance of the pupil. The patient can now distinguish various colors and the blurred outlines of large objects. The pupil, which originally had a shiny pearl-like hardness, has now lost this appearance and seems to be semitranslucent. When dilated, the periphery of the pupil appears normal. To gross examination the cataract now appears variable in density, being roughly irregular in the temporal portion and much paler there. Slit lamp examination discloses that the anterior cortex, up to the nucleus of the lens, is transparent. The appearance of the lens otherwise is unchanged. There can be no doubt that definite improvement in this cataract has occurred. What the ultimate outcome will be is, of course, problematic as yet. The future course of this patient will be reported at a later date.

TOXIC REACTIONS

Special types of toxic reactions are described in their proper sections. There are certain types of reactions that have not received their proper attention in the literature. Four patients complained of marked languor and weakness. Of the four, one was a patient with hyperinsulinism whose blood sugar dropped below the premedication levels. Three patients felt drowsy and presented a "toxic" appearance, if one may be permitted the use of such an expression. They had no outstanding complaints but their appearance and clinical behavior became so rapidly worse that the drug had to be discontinued. One patient was prostrated for several days after ingesting one capsule. This happened twice, so that the drug had to be abandoned. One patient developed extreme generalized aches and pains after the ingestion of three capsules. The symptoms recurred after the drug was resumed.

Among other side actions noted were the development of an acute cystitis in one patient and marked dizziness in another, necessitating the withdrawal of the drug.

102. Horner, W. D., quoted by Barkan, Borley, Fine and Betterman.[4]
103. Horner, W. D., Jones, R. B., and Boardman, W. W.: Cataracts Following the Use of Dinitrophenol, J. A. M. A. **105**: 108 (July 13) 1935.
104. Müller, H. K., and Buschke, W.: Arch. f. Augenh. **108**: 468, 1934.
105. Bellows, John: Biochemistry of the Lens, Arch. Ophth. **15**: 78 (Jan.) 1936.
106. Svirbely, J. L.: J. Biol. Chem. **111**: 147 (Sept.) 1935.
107. Goldmann, H., and Buschke, W.: Arch. f. Augenh. **109**: 204, 1935. Strauss.[108]
108. Strauss, W.: Arch. f. Augenh. **108**: 585, 1934.
109. Fisher, F. D.: Arch. f. Augenh. **108**: 527, 1934. Müller, H. K., and Buschke, W.: Arch. f. Augenh. **108**: 592, 1934. Müller, H. K.: ibid. **109**: 304, 1935. Müller and Buschke.[104]
110. Josephson, E. M.: Science **82**: 222 (Sept. 6) 1935.

111. One one-hundredth gram of vitamin C corresponds to about 1 ounce of fresh orange juice.
112. The form used was Cebione, a preparation of Merck & Co., who cooperated in supplying the drug.

Colds and sinusitis developed in thirteen patients, in a few twice. Five patients developed acute bronchitis, two acute laryngitis, and three acute tonsillitis. The incidence of these infections of the upper respiratory tract was certainly no greater than would be the case in a control group, yet there is no gainsaying the fact that the excessive sweating, to which many patients are subject, does predispose to the development of colds. Noun's [113] patient, who became sensitized to dinitrophenol and developed asthma, is worthy of note.

TABLE 6.—*Effect of Dinitrophenol on Basal Metabolic Rate*

	Average Daily Dose of Sodium Dinitrophenol, Gm.	Number of Determinations	Average Metabolic Rate, per Cent	Range, per Cent
Tainter, Stockton and Cutting	Control	37	+ 0.2	−27 to + 19
	0.1	1	+13	
	0.2	10	+20	− 6 to + 88
	0.3	16	+31	+ 7 to + 66
	0.4	16	+50	+22 to + 83
	0.5	8	+56	+ 7 to +107
Author	Controls	32	+ 7.3	−16 to +43
	0.1	3	+12	+ 5 to +25
	0.2	2	+14	− 1 to +26
	0.3	7	+30	+ 3 to +65
	0.4	8	+37	+ 3 to +69
	0.55	2	+52	+47 to +60
	Other controls*	12	+ 1.3	−27 to +30

* Patients who did not receive dinitrophenol.

The patients included three with chronic arthritis and five with syphilis (including one with tabes). None suffered any ill effects except the one with tabes, who developed urticaria. Several patients were alcoholic addicts but showed no untoward reactions. Patients with renal damage also showed no unusual susceptibility to the action of the drug. Four patients with moderately advanced rheumatic heart disease (two with mitral stenosis) were included. The drug may be used apparently with impunity in such cases.

Seven fatalities have been reported, six from dinitrophenol and one from dinitro-orthocresol.[114] Only two were definitely due to overdosage.[115] One cannot refrain from remarking that, in view of the remarkably extensive use of the nitrophenols, often without medical supervision, fatalities are extremely rare.

RESULTS

Tainter, Stockton and Cutting [34] achieved weight reduction in 165 of 170 unselected obese patients. The average daily dose was 0.34 Gm. and the average weight loss 1.4 pounds (635 Gm.) a week (table 7, group 9). Others reported losses ranging from 0.92 to 1.7 pounds a week.[116] In a review [83] of 290 cases in the literature, 276 showed a weight loss. Bayer and Gray [117] found dinitrophenol to be an effective adjunct to diet, after the weight loss on diet alone had become stationary. Negative reports in the literature are few.[118] Other reports show very disappointing losses of weight.[119]

113. Noun, M. H.: J. Iowa M. Soc. **25**: 610 (Nov.) 1935.

114. Death After Slimming Treatment, Lancet **1**: 489 (March 3) 1934. Dekrysil Treatment: The Paddington Inquest, ibid. **1**: 652 (March 24) 1934. Geiger.[115] Masserman and Goldsmith.[50] Poole and Haining.[41] Tainter and Wood.[41] Silver.[92] Lattimore.[46] Dameshek and Gargill.[92]

115. Geiger, J. C.: A Death from Alpha-Dinitrophenol Poisoning, J. A. M. A. **101**: 1333 (Oct. 21) 1933. Poole and Haining.[41] Tainter and Wood.[41]

116. Markowitz.[82] Masserman and Goldsmith.[50] Salmon.[51]

117. Bayer, L. M., and Gray, Horace: Am. J. M. Sc. **189**: 86 (Jan.) 1935.

118. Andersen, W. T.: Ugesk. f. læger. **96**: 521 (May 17) 1934. Bortz.[71] Molitch.[63] Masserman and Goldsmith.[50] Silver.[92] Vermeylen and Heernu.[45] Grant and Schube.[30] Finkelman and Stephens.[70]

119. Strang, J. M., and Evans, F. A.: An Evaluation of Dinitrophenol as an Aid in Weight Reduction, J. A. M. A. **104**: 1957 (June 1) 1935. Dunlop.[9]

In the present series the 181 patients were divided into several groups (table 7). When analyzed statistically, some surprising results are obtained. Fifty-nine patients were given dinitrophenol alone (groups 1 and 2). Of these, twelve (20.3 per cent) lost no weight. Forty-seven lost weight very satisfactorily, an average of 2.1 pounds (953 Gm.) a week. This compares with Tainter, Stockton and Cutting's [34] average of 1.4 pounds (635 Gm.) a week. Taken as a group, the average loss of weight for the patients on dinitrophenol (group 3) was 1.7 pounds (770 Gm.) a week. The percentage of failure is quite high compared with Tainter's percentage (only five of 170 lost no weight) and yet is more consistent with the fairly numerous failures of reduction reported in the literature. The dosage is not in question, as in an effort to secure weight loss the dose was raised considerably above that of the group which lost weight (3.9 mg. per kilogram in group 1 compared with 3.2 mg. per kilogram in group 2; in many patients the dose ranged between 5 and 6 mg. per kilogram without result).

In group 4, forty-one patients were given 2 grains (0.13 Gm.) of desiccated thyroid and the dinitrophenol dosage was raised enough to produce a satisfactory weight loss. In this group the average weight loss was the same as in group 2, and the dinitrophenol dosage was slightly higher. The chief difference was that all patients lost weight, as contrasted with a failure of 21 per cent in group 3. In group 5 (thirty-nine patients) the thyroid dosage was increased to from 3 to 4 grains (0.2 to 0.26 Gm.) daily. In spite of this increase and a fairly marked increase of dinitrophenol dosage the weight loss was distinctly lower than in either group 2 or group 4. Again there were no failures of weight reduction. In group 6 (which comprised a small group of patients resistant to ordinary dosage) the average loss of weight was the same as in the preceding groups, but the dinitrophenol dose reached was the highest in the entire series. The thyroid dosage was also high. One patient, who had pituitary dysfunction, became refractory to thyroid after a dose of 9 grains (0.6 Gm.) daily was reached. The dose was steadily increased to 33 grains (2.15 Gm.) daily without any clinical effects whatever.

TABLE 7.—*Effects of Dinitrophenol and Desiccated Thyroid on Reduction of Weight*

	Group	Number of Cases	Average Daily Dose of Sodium Dinitrophenol (Mg./Kg.)	Average Daily Dose of Desiccated Thyroid (Grains)	Average Duration of Treatment (Days)	Average Weight Loss per Patient (Lbs./Week)	Average Total Weight Loss per Patient (Lbs.)
Author	1	12	3.9	0	37	0.0	0.0
	2	47	3.2	0	37	2.1	11.1
	3*	59	3.4	0	37	1.7	8.9
	4	41	3.4	2	37	2.0	11.0
	5	39	3.9	3 to 4	53	1.7	13.4
	6	7	4.0	5 to 33	89	1.7	22.2
	7	13	100 mg. daily	3 to 4	22	2.6	8.3
	8	22	0.0	2½ to 6	67	1.5	15.0
Total		181					
Tainter et al.	9	170	0.34 gms.	0	88	1.4	17.1

* Summation of groups 1 and 2.

In group 7 (thirteen patients), each patient was given one 100 mg. capsule of sodium dinitrophenol daily, and the desiccated thyroid dose was regulated to yield a satisfactory loss of weight. In this group the best results of the series were obtained, the average loss of weight being 2.6 pounds (1,180 Gm.) a week. It must be noted, however, that the duration of treatment was

short, covering an average of three weeks, when patients lose weight most rapidly under any regimen of treatment.

Why the addition of moderate doses of desiccated thyroid (2 grains, or 0.13 Gm. daily) should enhance the action of dinitrophenol is a matter for speculation. Possibly the beneficial effect is due to the action of thyroid on the distribution of water in the body. Thus it tends to prevent the water-logging of the tissues, to which many failures of dinitrophenol therapy must be ascribed. Possibly a few patients in this group would have lost the same amount of weight without the presence of sodium dinitrophenol, even though no rigid dietary measures were followed. It will be noted in groups 2, 4, 5 and 6 that, as the thyroid dosage was steadily raised, a corresponding increase in the dinitrophenol dosage occurred, in order to produce comparable losses of weight. The significance of this is undetermined.

Dinitrophenol acts most satisfactorily in patients with the exogenous type of obesity. "Individuals with pituitary or gonadal gland deficiency often tolerate the drug badly or not at all."[9] Its ineffectiveness in hypothyroid patients has been noted.[120] This tendency was also observed in the present series.

A group of twenty-two patients (group 8) were put on a regimen of a moderately restricted high protein diet (averaging 1,500 calories a day) abetted by desiccated thyroid. The dose was controlled by watching the pulse rate. The thyroid was discontinued or reduced when the pulse rate reached 100 a minute. It was controlled also, of course, by the development of nervousness, palpitation, substernal pressure or headache. The effect of thyroid is proportional to the dose. The average rate of weight loss was the lowest of all the groups (1½ pounds, or 680 Gm., a week). The thyroid dosage was moderate. This method of weight reduction is very satisfactory and easy to control. The results obtained may be compared with those of Lyon and Dunlop,[121] who obtained an average daily loss of 273 Gm. on diet combined with thyroid as contrasted with 162 Gm. a day on diet alone. Patients with pituitary disease often show very little response to thyroid therapy. The weight loss in ovarian cases is markedly increased by thyroid.[122] In group 8 were two patients with hypopituitarism: one did not respond to even a dose of 15 grains (1 Gm.) daily; the other patient lost 36 pounds (16 Kg.) in twenty weeks and then gradually became refractory to even 30 grains (2 Gm.) of desiccated thyroid daily for four months.

REPORT OF CASE

Mrs. M. T., aged 46, white, who weighed 310 pounds (140 Kg.), first began treatment Oct. 31, 1934. She concluded her treatment June 30, 1936, at which time she weighed 170 pounds (77 Kg.), a loss of 140 pounds (63.5 Kg.). She received treatment for eighty-four weeks (treatment being intermitted about every three months for one week). Her average rate of loss was 1.7 pounds (770 Gm.) a week. During her period of treatment she ingested a total of 254 Gm. of dinitrophenol with no ill effects whatever. The dose varied tremendously, the average being 0.5 Gm. daily. For three weeks she took 0.65 Gm. daily. Complete laboratory studies were negative throughout (urine, blood count, icteric index, van den Bergh test, bromsulfalein test, intravenous phenolsulfonphthalein test, dextrose tolerance test and electrocardiogram). She represents the largest loss of weight on dinitrophenol medication recorded in the literature.

120. Dunlop,[9] Rabinowitch and Fowler.[8]
121. Lyon, D. M., and Dunlop, D. M.: Quart. J. Med. **1**: 331 (April) 1932.
122. Dunlop, D. M., and Lyons, R. M.: Edinburgh M. J. **38**: 561 (Oct.) 1931.

COMMENT

In dinitrophenol the medical profession has acquired a remarkable drug, a metabolic agent that is well adapted to both clinical and laboratory research. The problems connected with its unpredictable, and occasionally alarming, reactions in some patients are far from solved. Apparently it is nontoxic to the liver, kidneys and heart in therapeutic dosage. Neutropenias are rare. Peripheral neuritis is rather common but not troublesome. Skin rashes, which are common, no longer excite their quondam fear. Cataracts, whether due to the direct effects of the drug or possibly to some unknown mechanism mediated by it, are common. No loss of weight can be condoned at the price of cataracts, and consequently the indiscriminate clinical use of dinitrophenol should be discontinued at once until the problem of complicating cataracts is solved. The clinical use of dinitrophenol should be reserved for urgent indications only.

CONCLUSIONS

1. One hundred and eighty-one unselected ambulatory obese patients were studied. One hundred and fifty-nine patients were given therapeutic doses, by mouth, of 2:4 sodium dinitrophenol alone or in combination with desiccated thyroid. Twenty-two patients were treated with dietary control and desiccated thyroid.

2. The therapeutic administration of dinitrophenol does not impair liver function (as disclosed by studies of the icteric index, van den Bergh test and bromsulfalein test), renal function (as disclosed by studies of the urine and the intravenous phenolsulfonphthalein test) or cardiac muscle (as disclosed by electrocardiographic tracings).

3. The pulse rate is unaffected by therapeutic dosage. There were two unusual cases of bradycardia. Ten hypertensive patients (including two who had chronic nephritis and one malignant hypertensive patient) showed marked prompt reduction of blood pressure. Normal blood pressure shows no significant change. One case of dinitrophenol phlebitis was observed. The drug can be used very satisfactorily in obese patients with rheumatic heart disease.

4. The dextrose tolerance studies in normal patients reveal that with short courses of dinitrophenol administration there is a moderate elevation of the fasting blood sugar (though not hyperglycemia) and a moderate impairment of dextrose tolerance in the majority of cases. With prolonged therapeutic administration there is no change in the fasting blood sugar and a marked increase in dextrose tolerance. In diabetic patients on short courses of dinitrophenol the results are variable, the dextrose tolerance being increased as often as decreased, with parallel changes in the fasting blood sugar. With prolonged administration in patients with diabetes there is an increase of carbohydrate tolerance.

5. Gastro-intestinal disorders are negligible.

6. The average increase in the basal metabolic rate is about 11 per cent for each 0.1 Gm. daily dose. No consistent effect of dinitrophenol on blood cholesterol was noted.

7. Skin rashes were observed in 20.1 per cent. Simple pruritus occurred in four cases, a macular rash in three, papular and maculopapular rashes in twelve, swelling and redness of the hands and feet in four, and urticaria in ten. A violent urticarial reaction was observed. A case of dinitrophenol alopecia was observed.

8. There is no way of predicting sensitivity to dinitrophenol. Skin tests are of no value. Dinitrophenol reactions are probably only rarely allergic in character.

9. Four patients developed marked peripheral neuritis. Five patients showed disturbances of taste that disappeared without omission of the drug.

10. No case of agranulocytosis developed nor were any changes noted in the blood cells, as shown by blood counts.

11. In a case of cataracts complicating dinitrophenol therapy, somewhat encouraging results were obtained with vitamin C therapy.

12. Other toxic side-actions, such as generalized pains and weakness, were observed.

13. With dinitrophenol alone, 20.3 per cent of patients (twelve of fifty-nine) lost no weight. The average loss of weight for the remainder (forty-seven patients) was 11.1 pounds per patient, with an average rate of weight loss of 2.1 pounds weekly. The addition of 2 grains (0.13 Gm.) of desiccated thyroid daily produced a marked increase in dinitrophenol effectiveness, no failure of reduction occurring in this group. The average weight loss in this group was 11 pounds per patient, with an average rate of loss of 2 pounds a week. The group treated with diet and desiccated thyroid lost an average of 15 pounds, with an average rate of weight loss of 1½ pounds a week.

14. One patient lost 140 pounds (63.5 Kg.) in eighty-four weeks, an average of 1.7 pounds (770 Gm.) a week. During that time she took 254.6 Gm. of sodium dinitrophenol with no ill effects, as demonstrated by complete repeated laboratory and clinical studies.

15. The indiscriminate clinical use of dinitrophenol should be discontinued until the vexing problem of cataracts complicating dinitrophenol therapy is solved.

402 Spencer Street.

Clinical Notes, Suggestions and New Instruments

PRIMARY HEMATOGENOUS OSTEITIS OF THE PATELLA

F. L. FLACK, M.D., TULSA, OKLA.

Primary spontaneous hematogenous osteitis of the patella is evidently quite unusual, according to the reported cases in a review of the literature on this subject. Also the diagnosis of this condition is rarely made early enough to prevent marked destruction of the patella and an extension of the infection. Chesky [1] in 1923 made an extensive review and found thirty-five cases reported and added one of his own. Other cases have been reported by Christopher,[2] Dillehunt,[3] Martin [4] and Sagel.[5] The following case is of unusual interest:

Mrs. M. Y., aged 20, was seen Dec. 28, 1936, at St. John's hospital. Examination showed the right knee and the region just above and below to be swollen to about twice the normal size. The swelling extended about 8 inches (20 cm.) above the knee and 2 or 3 inches (5 or 7.5 cm.) below. This area of swelling was red and painful, and the skin over the knee joint was darkly mottled. The extremity was fixed in extension and was very painful on flexion or extension. There was but slight pain on motion in a longitudinal direction. The swelling was tense and no fluctuation could be made out. The temperature was 102 F., pulse 120 and respiration rate 26. Physical examination was entirely negative in other respects. The white blood count was 8,150. The Kahn and Kline reactions were negative. There was physical and laboratory evidence of a moderate secondary anemia. There was no evidence of tuberculous or gonorrheal infection.

X-ray examination of the region of the right knee showed marked absorption and osteitis, with many sequestrums involving the entire patella. All the other bony structures in the region of the knee joint were normal.

The patient gave a history of gradually increasing pain in the region of the right knee, which had started eight weeks previously. She had been treated during these eight weeks with various forms of therapy for variously named diseases. No history of trauma or local infection was obtained.

Under spinal anesthesia the knee joint was aspirated with a large bore needle and no fluid was found. An incision was made over the patella, and a large amount of pus, estimated at two thirds of a pint, was evacuated. The pus had extended into the prepatellar bursa and up the median side of the thigh a distance of 6 inches (15 cm.). The knee joint did not contain an increased amount of fluid. The patella was practically destroyed and all that remained was several sequestrums. The sequestrums were removed and drainage was established.

Osteitis of the patella.

Microscopic examination of the pus and blood agar cultures showed numerous colonies characteristic of Staphylococcus aureus in pure culture. Microscopic examination of the sequestrums showed marked neutrophilic and round cell infiltration with much focal necrosis.

During convalescence repeated questioning disclosed no history of trauma or infection to the knee or any other part of the body. There was no history of any infection obtained. No doubt some infection in the throat or some part had been present.

Following the removal of the sequestrums and drainage she was immediately relieved of pain, and her general physical condition rapidly improved. The drainage continued for about five weeks. At this time, Feb. 20, 1937, the wound is closed, she has about 50 per cent motion of the knee, which is increasing, and she is walking with a slight limp and bearing weight on this leg.

816 National Bank of Tulsa Building.

1. Chesky, V. E.: Primary Osteomyelitis of the Patella, Surg., Gynec. & Obst. **36**: 398-406 (March) 1923.
2. Christopher, Frederick: Acute Osteomyelitis of the Patella, J. Bone & Joint Surg. **15**: 1012-1014 (Oct.) 1933.
3. Dillehunt, R. B.: Osteomyelitis in Infants, Surg., Gynec. & Obst. **61**: 96-101 (July) 1935.
4. Martin, J. R., and Horwitz, N. T.: Osteomyelitis of the Patella, Am. J. Surg. **29**: 287 (Aug.) 1935.
5. Sagel, Jacob: Acute Osteomyelitis (Osteitis) of the Patella, J. Bone & Joint Surg. **16**: 959 (Oct.) 1934.

Weelum MacLure.—Stouten your hearts by reading of the doctor in fiction, and emulate Lydgate, at least up to the point which will warn you against marrying the wrong woman. Familiarize yourselves with the writings of healthy-minded doctors like Oliver Wendell Holmes and John Brown, of Rab and His Friends. If you need an antidote for the cynicism of Arrowsmith, buy or borrow Sarah Orne Jewett's nigh-forgotten story depicting her own father as a country doctor; for there are still John Leslies in the country districts and room for many more—plenty of room, too, for Nan; and if she is really serious about it she's worth to the world a thousand Leoras. Perhaps best of all, if you would learn what unalloyed professional devotion may be and what rewards it may bring, read or reread the last chapters of Ian Maclaren's Beside the Bonnie Briar Bush and let the example of Weelum MacLure, to whom I have already alluded, become a part of you.—Cushing, Harvey: Consecratio Medici and Other Papers, Boston, Little, Brown & Co., 1928.

Special Article

DIPHTHERIA MORTALITY IN LARGE CITIES OF THE UNITED STATES IN 1936

FOURTEENTH ANNUAL REPORT

For the preparation of this annual review, data have been obtained from the health departments of the same ninety-three cities that have been considered in previous annual reviews on diphtheria death rates and likewise the same cities for which data were tabulated on typhoid.[1] The health officers were asked to furnish their own local estimates of population in view of the fact that figures for 1936 have not been released by the United States Census Bureau. In the case of Scranton, the figures were furnished by the Pennsylvania State Health Department. In a few instances in which the local health department did not furnish an estimate, the 1930 census figures were employed. It is believed that any reasonable corrections in population would not materially influence the rates.

As has been the case in previous articles, the health department was requested to report not only the total number of diphtheria deaths that actually occurred in the community but to indicate the number of deaths among nonresidents.

The fourteen New England cities (table 1) continue to have a good record, the death rate for the entire group being practically the same as for 1935. In each of the last two years there were twenty-eight deaths from diphtheria in this group. While for 1935 half of these cities reported no death from diphtheria, in 1936 there were only three cities (Cambridge, New Haven, Somerville) with no death; but there were three additional cities (Worcester, Bridgeport, Springfield) in which it is stated that all deaths occurred among nonresidents. Cambridge and New Haven have had no death from diphtheria during the past three years (table 10). Cambridge and Somerville reported no death from diphtheria or typhoid in 1936 (table 12).

TABLE 1.—*Death Rates of Fourteen Cities in New England States from Diphtheria (Including Croup) per Hundred Thousand of Population*

	1936	1935	1930-1934	1925-1929	1920-1924	1915-1919	1910-1914	1905-1909	1900-1904	1895-1899	1890-1894
Cambridge	0.0	0.0	1.2	3.2	8.9	12.9	23.8	25.3	46.7	71.9	58.0
New Haven	0.0	0.0	0.5	1.6	7.1	14.2	14.9	22.7	15.6	54.8	74.5
Somerville	0.0	0.9	9.0	5.7	19.7	20.2	21.4	21.5	40.5	57.8	37.4
Providence	0.4	1.2†	5.0	9.5	15.8	29.3	26.8	30.7	41.2	53.5	55.3
Worcester	0.5*	0.5	2.9	8.6	15.5	14.1	21.3	32.2	16.5	50.3	47.8
Bridgeport	0.7*	0.0	1.0	11.8	19.6	23.4	23.3	26.8	34.2	63.9	79.3
Boston	0.9	1.3	3.2	8.3	20.2	26.3	20.0	26.2	53.7	83.9	112.2
New Bedford	0.9	0.0‡	4.8	10.9	16.5	17.0	20.9	22.6	25.1	53.6	20.0
Waterbury	1.0	0.0	2.4	2.6	17.9	23.0	29.6	....	....	....	....
Hartford	1.1	4.1†	1.1	5.3	11.9	13.8	25.3	28.1	38.8	47.8	120.9
Springfield	1.3*	0.0	2.1	10.3	15.4	24.9	19.1	31.3	29.6	51.3	68.2
Fall River	1.7	1.7‡	3.9	12.0	25.5	23.6	24.0	34.4	50.1	43.8	46.9
Lynn	2.0	0.0	4.7	13.5	17.0	17.8	17.2	21.7	38.0	44.0	49.0
Lowell	8.0	4.0‡	9.4	10.6	16.7	23.5	20.6	31.0	59.3	44.3	36.4

* All diphtheria deaths were stated to be in nonresidents.
† One third or more of the reported diphtheria deaths were stated to be in nonresidents.
‡ Rate computed from population as of April 1, 1930, as no estimate for July 1, 1933, was made by the Census Bureau.

The preceding articles were published in THE JOURNAL, Sept. 20, 1924, p. 918; April 25, 1925, p. 1269; April 3, 1926, p. 1005; April 30, 1927, p. 1396; May 19, 1928, p. 1621; May 25, 1929, p. 1759; June 7, 1930, p. 1838; May 23, 1931, p. 1768; May 7, 1932, p. 1644; May 20, 1933, p. 1595; May 26, 1934, p. 1758; June 15, 1935, p. 2182, and June 13, 1936, p. 2060.

1. Typhoid in the Large Cities of the United States in 1936, J. A. M. A. **108:** 2118 (June 19) 1937.

Lowell, with a rate of 8.0 (table 1), not only had the highest death rate of any city in the group but also the highest death rate of any of the ninety-three cities (table 9). The death rate in this city has been relatively high for many years. With this one exception, no city in the group had a rate in excess of 2.0. Boston, the largest city, reported seven diphtheria deaths, of which two were in nonresidents.

There are eighteen cities in the Middle Atlantic states in which eighty-seven deaths from diphtheria were reported in 1936, a definite decrease from the 129 deaths in 1935. The rate of 0.65 (table 15) is but two thirds of the rate for 1935. This group of cities had the lowest quinquennial average for 1930-1934 as well as the lowest rates for the past two years. While in 1935 there were three cities with a rate higher than 2.0 (Trenton, Camden, Jersey City), there were but two cities with rates above 2.0 in 1936 (Pittsburgh, Yonkers). Yonkers finds itself in the unenviable position of having both a high diphtheria (5.5) and a high typhoid (4.8) rate in 1936. This is quite in contrast to the low death rate reported in Yonkers since 1930. No comment is made by the health officer of any unusual outbreak. Eight cities reported no death from diphtheria in 1936. Syracuse has had no death in four consecutive years, Utica has been without a death during the past three years, and Albany, Erie and Rochester report no deaths in 1935 and 1936 (table 10). Syracuse and Utica have the distinction of being in the group of six cities (table 12) that report no death from diphtheria or typhoid in 1936. Among the largest cities, New York with thirty-five resident deaths records a new low rate (0.5). The rate is the same in Philadelphia (0.5), with ten resident deaths. Of ten deaths in Buffalo, five occurred among nonresidents. Of the sixteen deaths in Pittsburgh, two were of nonresidents. Of the nineteen cites with no diphtheria death in 1936, eleven are in the New England and Middle Atlantic groups (table 11). Of the six cities with no deaths from typhoid or diphtheria, four are in these two groups (table 12). Of the eight cities that have gone two or more years without a death from diphtheria, all except Tacoma are in the New England and Middle Atlantic groups (table 10).

The nine cities of the South Atlantic group record sixty-seven deaths, compared with eighty in 1935, a

TABLE 2.—*Death Rates of Eighteen Cities in Middle Atlantic States from Diphtheria (Including Croup) per Hundred Thousand of Population*

	1936	1935	1930-1934	1925-1929	1920-1924	1915-1919	1910-1914	1905-1909	1900-1904	1895-1899	1890-1894
Albany	0.0	0.0	2.9	7.5	12.8	10.4	20.0	31.6	26.9	....	....
Elizabeth	0.0	1.7†	4.5	13.2	19.2	19.3	14.8	51.7	42.4	60.5	79.3
Erie	0.0	0.0	3.5	5.8	16.8	15.1	17.7	27.1	42.3	23.1	....
Newark	0.0	0.2	3.0	14.5	9.7	14.6	23.3	30.1	46.7	79.1	110.4
Rochester	0.0	0.0	0.7	7.5	16.9	12.7	22.1	32.4	32.3	45.9	96.6
Syracuse	0.0	0.0	0.4	2.0	22.9	12.9	16.6	17.4	17.7	31.1	55.4
Trenton	0.0	2.4†	2.7	4.4	7.3	8.8	12.8	15.8	23.6	92.7‖	80.7‖
Utica	0.0	0.0	1.2	13.4#	....	....	....	....	....	....	....
New York	0.5	0.9	2.2	10.7	14.0	21.8	28.0	40.0	58.0	85.8	134.4
Philadelphia	0.5	1.0	1.3	11.8	16.7	22.7	24.6	34.1	50.0	100.6	119.4
Paterson	0.7	1.4	6.3	9.1	18.5	13.5	16.1	25.5	52.9	111.8	145.4
Scranton	0.7¶	0.0¶	1.3	11.7	12.3	22.1	23.4	....	....	77.8‖	48.6‖
Camden	0.8	5.0†	7.7	21.9	20.3	23.2	38.8	48.9	52.6	93.8	194.0
Reading	0.9	0.0	3.8	7.3	21.1	16.9	35.7	29.2	70.1	72.0	94.1
Jersey City	1.2	4.1	6.0	11.5	18.4	21.0	23.2	32.6	57.9	85.4	108.6
Buffalo	1.7†	1.0†	4.8	9.1	24.0	27.3	22.0	18.4	24.8	53.5	60.9
Pittsburgh	2.3	1.5	5.0	11.5	20.1	22.3	29.3	20.4	36.9	22.9	86.4
Yonkers	5.5	0.0	0.6	10.4	17.0	17.7	25.3	....	....	....	....

† One third or more of the reported diphtheria deaths were stated to be in nonresidents.
‖ Diphtheria deaths from Chapin's Municipal Sanitation.
Incomplete data.
¶ Diphtheria data for Scranton furnished by Pennsylvania Department of Health, Harrisburg

rate in 1936 of 2.59. One city (Wilmington) reports no death in 1936. Five of the nine report rates in excess of 2.0. Atlanta and Washington have rates below that of the preceding year (table 3). Of twenty-seven deaths in Washington, nine were among nonresidents; of five deaths in Richmond, three were among nonresidents. If correction for residence is made, the list of cities without a death increases to three with the addition of Miami and Tampa. Baltimore with ten deaths, two of which were of nonresidents, shows an increase over 1935; however, this city continues to maintain a relatively good position in this division.

The cities in the East North Central states report 168 deaths compared with 236 in 1935 (table 15).

TABLE 3.—*Death Rates of Nine Cities in South Atlantic States from Diphtheria (Including Croup) per Hundred Thousand of Population*

	1936	1935	1930-1934	1925-1929	1920-1924	1915-1919	1910-1914	1905-1909	1900-1904	1895-1899	1890-1894
Wilmington	6.0	3.7	5.3	10.9	11.6	15.2	18.0	27.8	50.9	84.9	83.8
Miami	0.8*	6.5	3.8	5.4#	....	....	....	....	....	....	....
Tampa	1.0*	6.6†	4.8	4.6	5.2	9.5#	....	....	....	....	....
Baltimore	1.2	0.7†	1.7	7.6	11.4	13.5	14.2	16.1	33.0	68.1	70.0
Richmond	2.7†	1.1†	3.6	6.9	9.8	5.8	7.0	9.8	24.4	17.6	59.7
Norfolk	3.1	2.3	4.6	4.1	4.3	4.1	6.7	17.0	....	....	....
Atlanta	3.8	6.8†	5.7	7.0	13.3	10.1	12.5	14.2	11.1	10.5	8.8
Washington	4.3†	5.8	3.9	7.1	10.5	11.9	6.9	11.2	23.5	50.9	77.9
Jacksonville	4.7	2.2	5.4	6.0#	....	....	....	....	....	....	....

* All diphtheria deaths were stated to be in nonresidents.
† One third or more of the reported diphtheria deaths were stated to be in nonresidents.
# Incomplete data.

TABLE 4.—*Death Rates of Eighteen Cities in East North Central States from Diphtheria (Including Croup) per Hundred Thousand of Population*

	1936	1935	1930-1934	1925-1929	1920-1924	1915-1919	1910-1914	1905-1909	1900-1904	1895-1899	1890-1894
Grand Rapids	0.0	0.6	0.3	2.0	19.6	13.5	20.0	26.6	17.2	32.4	99.2
Milwaukee	0.3*	0.7	2.0	8.5	11.4	19.8	27.8	26.4	22.7	51.7	116.2
South Bend	0.9	2.7	1.3	...	....	....	....	....	....	....	....
Toledo	1.0	0.7	2.8	7.2	22.4	14.1	25.4	20.4	56.8	34.6	89.3
Canton	1.0*	0.9	1.7	2.9	17.5	15.1#	....	....	....	....	....
Cleveland	1.1	2.3	2.5	15.3	14.7	20.0	24.6	20.8	42.6	45.3	95.7
Detroit	1.1	0.7	4.8	19.7	24.3	32.2	33.3	22.6	38.5	62.9	132.9
Youngstown	1.1	0.6	3.3	10.5	18.5	11.9	40.5	33.5	28.0	17.6	28.4#
Columbus	1.2†	3.3	3.2	4.6	8.5	7.6	12.1	10.5	11.6	28.5	56.9
Flint	1.2	6.0	2.7	4.5	29.9	25.5	12.7	11.0	16.8	6.9	69.2
Akron	1.6	4.1	2.7	4.9	10.4	18.9	27.8	21.8#	....	....	....
Cincinnati	1.7†	4.1†	3.2	5.2	10.6	13.2	13.9	17.0	17.3	37.3	103.7
Fort Wayne	2.4†	6.7	3.3	5.1	13.1	6.3	....	....	....	....	....
Chicago	2.5	2.4	4.3	11.7	17.5	31.2	37.9	27.0	33.9	69.7	117.3
Peoria	2.6*	12.7	5.3	4.9	7.4	10.8	10.6	10.9#	14.0	14.6	68.0
Dayton	2.7	7.3	3.5	4.6	9.4	9.3	22.1	13.3	17.2	27.4	82.9
Evansville	2.8	0.0	3.2	3.7	13.9	14.9	16.1	21.2	13.8	18.1	69.7
Indianapolis	3.0	5.6†	3.1	6.6	11.7	21.4	13.5	13.3	15.9	36.4‖	97.3#

* All diphtheria deaths were stated to be in nonresidents.
† One third or more of the reported diphtheria deaths were stated to be in nonresidents.
‖ Diphtheria deaths from Chapin's Municipal Sanitation.
Incomplete data.

The group rate of 1.73 is lower than that of 2.45 in 1935. Grand Rapids is the only city (table 4) with no death, although Milwaukee, Canton and Peoria record that all deaths were among nonresidents. For Milwaukee it is stated that two nonresident cases were brought into the city for hospitalization. There are but four cities of the eighteen which have a corrected rate in excess of 2.0. Evansville, at the top of the list in 1935 with no death, dropped nearly to the bottom in 1936 with a rate of 2.8, as a result of three resident deaths. Among the larger cities Chicago records eighty-seven deaths, all but one being residents; Detroit reports eighteen deaths, of which five are among nonresidents; Cleveland reports ten deaths, of which all are among residents. Of the eight deaths in Cincinnati, three are of nonresidents.

The six cities in the East South Central states have greatly improved their records over the preceding year, there being thirty-eight deaths in 1936 in contrast to fifty-nine in 1935 (table 15). Of these thirty-eight deaths fourteen, or 37 per cent, occurred among nonresidents, again showing how these Southern cities

TABLE 5.—*Death Rates of Six Cities in East South Central States from Diphtheria (Including Croup) per Hundred Thousand of Population*

	1936	1935	1930-1934	1925-1929	1920-1924	1915-1919	1910-1914	1905-1909	1900-1904	1895-1899	1890-1894
Louisville	1.4†	4.7	6.3	4.6	10.4	9.5	9.0	....	....	39.0‖	49.6#‖
Memphis	2.2†	2.7†	6.0	5.8	9.5	11.2	11.9	13.4	6.9	10.0	28.5
Chattanooga	3.3	4.0	6.8	5.9	8.7	8.9	....	....	....	....	....
Birmingham	3.5†	2.9	4.2	5.4	5.3	7.2	8.3	6.2	13.4	16.5	26.3
Nashville	3.8†	5.8†	8.2	11.8	8.0	8.9	7.3	10.3	13.9	30.1	28.4
Knoxville	6.5†	13.6†	9.6	6.3	11.2	....	....	....	....	....	....

† One third or more of the reported diphtheria deaths were stated to be in nonresidents.
‖ Diphtheria deaths from Chapin's Municipal Sanitation.
Incomplete data.

serve as hospital centers for surrounding territory. With one single exception each city in the group shows a lower rate than for the preceding year (table 5).

The West North Central states (table 15) record thirty-eight deaths, compared with fifty-nine in 1935, lowering the group rate from 2.18 to 1.37. There are

TABLE 6.—*Death Rates of Nine Cities in West North Central States from Diphtheria (Including Croup) per Hundred Thousand of Population*

	1936	1935	1930-1934	1925-1929	1920-1924	1915-1919	1910-1914	1905-1909	1900-1904	1895-1899	1890-1894
Duluth	0.0	1.0	0.4	2.0	6.0	10.2	8.8	38.2	29.1	7.6	49.5
Kansas City, Mo.	0.0	2.2	3.2	4.7	14.4	22.8	15.7#	....	....	....	....
St. Paul	0.0	0.7†	1.1	5.2	17.5	20.7	31.4	31.1	27.9	43.3	75.4
Kansas City, Kan.	0.8	2.4	3.7	4.6	9.8	23.1	12.4#	....	....	....	....
Wichita	1.0	2.5	4.6	4.2	...	....	....	....	....	....	....
Minneapolis	1.6	0.6	1.7	11.9	13.4	19.9	28.3	24.4	44.6	34.0	55.0
St. Louis	2.0	2.9	4.3	10.3	16.1	24.4	23.7	19.4	43.3	62.9	67.7
Omaha	2.7	3.2	4.7	6.4	22.9	35.8	15.8	24.5	20.5	28.2	82.9
Des Moines	3.5†	4.8	4.3	5.2	15.1	16.6	15.1	23.8#	....	....	....

† One third or more of the reported diphtheria deaths were stated to be in nonresidents.
# Incomplete data.

three cities (Duluth, Kansas City, Mo., St. Paul) with no death in 1936, which is a significant improvement over the record of the preceding year, when there was no city in this class (table 6). Duluth records no death from either diphtheria or typhoid in 1936. Of eight deaths in Minneapolis and six in Omaha, all are

TABLE 7.—*Death Rates of Eight Cities in West South Central States from Diphtheria (Including Croup) per Hundred Thousand of Population*

	1936	1935	1930-1934	1925-1929	1920-1924	1915-1919	1910-1914	1905-1909	1900-1904	1895-1899	1890-1894
Tulsa	2.1	3.4	6.8	12.5	8.3#	....	....	....	....	....	....
Oklahoma City	3.8	2.5	5.7	10.9	....	....	....	....	....	....	....
El Paso	3.9	3.8	8.0	7.3	20.0	17.6	29.2	....	....	....	....
Fort Worth	3.9	7.1	7.2	10.8	1.7#	2.6#	2.6	2.8	5.4	....	....
New Orleans	3.9†	5.5†	5.5	8.5	6.5	11.6	19.6	10.2	11.5	17.1	51.3
Houston	4.1	4.7	5.6	8.2	6.4	6.1	7.8	10.5	4.2#	2.4	1.8
San Antonio	5.0	9.4	5.6	10.3	7.7	8.7	6.7	7.6	17.1	20.6	4.4
Dallas	7.3	6.5	9.7	9.8	8.3	7.4	6.9	8.1	16.9	16.0	21.8

† One third or more of the reported diphtheria deaths were stated to be in nonresidents.
# Incomplete data.

recorded as among residents. Of the seventeen deaths in St. Louis, three are of nonresidents and of the five in Des Moines, two are of nonresidents. Duluth seems to be holding its place as the leader in the West North Central group.

The eight cities in the West South Central group, while showing a decrease in the number of deaths from 108 in 1935 to eighty-seven in 1936, continue to have the highest rate for any section of the country (table 15). It is this same group of cities that records the highest death rate for typhoid. There is not a city in the group with a diphtheria death rate in 1936 below 2.0 (table 7). Dallas, with nineteen deaths, of which six are among nonresidents, has the highest rate. As in the case of the East South Central states, nonresidence plays an important part, as evidenced by four nonresident deaths out of thirteen deaths in San Antonio and ten out of twenty in New Orleans. In Houston there is no separation by residence for the fourteen deaths from diphtheria. Of the five cities with the highest rate for 1936, two (Dallas and San Antonio) are in this group. Fort Worth and San Antonio show a noteworthy decrease in rate over the preceding year.

The Mountain and Pacific states record seventy-one deaths in 1936, compared with eighty-three in 1935 (table 15). As in the preceding year there are three cities with no deaths (table 8). In only one instance (Tacoma) has there been complete absence of deaths for two consecutive years. Of the eleven cities there are but three with rates in excess of 2.0 and there are six cities with a rate less than 1.0. Oakland reports a noteworthy decrease from 5.7 to 1.0. Of forty-six deaths occurring in Los Angeles, seventeen were among nonresidents.

Of the entire ninety-three cities there were nineteen in 1935 with a rate of 5.0 and over (table 13). In 1936 there were but five cities in this class. The number of cities with no deaths from diphtheria was the same each year, nineteen. There were, however, only eight cities (table 10) that were in this class for both years.

While no attempt has been made to determine the relationship between an active program of diphtheria prevention and the prevalence of this disease, the gen-

TABLE 8.—*Death Rates of Eleven Cities in Mountain and Pacific States from Diphtheria (Including Croup) per Hundred Thousand of Population*

	1936	1935	1930-1934	1925-1929	1920-1924	1915-1919	1910-1914	1905-1909	1900-1904	1895-1899	1890-1894
Salt Lake City..	0.0	1.4†	0.3	10.1	12.5	14.5	15.1	34.2	46.0	14.8	56.7#
Spokane.....	0.0	1.7	0.7	7.5	11.3	4.2	7.6	25.8	....	59.5‖	18.1
Tacoma.....	0.0	0.0	3.9	9.3	12.4	7.7#	....	....	....	....	....
Portland.....	0.3	0.0	1.3	6.4	11.3	6.0	12.3	12.2	20.2	....	....
San Francisco...	0.6	0.6	1.2	4.6	23.0	17.9	9.2	14.4	44.2	21.6	54.8
Seattle.....	0.8	0.0	0.4	1.4	6.6	5.5	5.2	12.5	13.4#	27.2‖	....
Oakland.....	1.0	5.7†	2.0	7.4	18.8	8.1	10.3	16.1	29.1	....	....
Long Beach.....	1.3	1.9†	0.8	2.6	10.4#	....	....	....	....	....	....
San Diego.....	2.3	1.9	2.9	6.6	12.2	10.5	8.0	5.8	2.4	....	....
Denver.....	2.7	4.8	3.9	8.9	23.2	6.7	10.2	20.8	29.6	27.3	130.2
Los Angeles.....	3.5†	2.8	4.8	7.0	14.4	7.1	7.5	15.3	25.4	35.8	46.0

† One third or more of the reported diphtheria deaths were stated to be in nonresidents.
‖ Diphtheria deaths from Chapin's Municipal Sanitation.
Incomplete data.

TABLE 9.—*Five Cities with Highest Diphtheria Rate for 1936*

Lowell.....	8.0	Yonkers.....	5.5
Dallas.....	7.3	San Antonio.....	5.0
Knoxville.....	6.5		

TABLE 10.—*Eight Cities with no Diphtheria Deaths in 1935 and 1936*

Albany	New Haven *	Tacoma
Cambridge *	Rochester	Utica *
Erie	Syracuse *	

* No diphtheria deaths in three years.

TABLE 11.—*Nineteen Cities with no Diphtheria Deaths in 1936*

Albany	Grand Rapids	Salt Lake City	Tacoma
Cambridge	Kansas City, Mo.	Somerville	Trenton
Duluth	New Haven	Spokane	Utica
Elizabeth	Newark	St. Paul	Wilmington
Erie	Rochester	Syracuse	

TABLE 12.—*Six Cities with no Diphtheria and Typhoid Deaths in 1936*

Cambridge	Salt Lake City	Syracuse
Duluth	Somerville	Utica

TABLE 13.—*Number of Cities with Various Diphtheria Death Rates*

	No. of Cities	40 and Over	20 and Over	10 and Over	5 and Over	Under 5	0.0
1890-1894.....	64	52	60	61	62	2	0
1895-1899.....	66	34	53	63	65	1	0
1900-1904.....	68	22	46	64	66	2	0
1905-1909.....	72	3	43	66	71	1	0
1910-1914.....	79	1	36	63	78	1	0
1915-1919.....	84	0	25	62	81	3	0
1920-1924.....	88	0	14	65	86	2	0
1925-1929.....	92	0	1	22	67	25	0
1930-1934.....	93	0	0	0	24	69	0
1935.....	93	0	0	2	17	76	19
1936.....	93	0	0	0	5	69	19

TABLE 14.—*Total Diphtheria Death Rates for Eighty-Eight Cities, 1923-1935* *

	Population	Diphtheria Deaths	Diphtheria Death Rate per 100,000 of Population
1923	31,060,848	4,078†	13.13
1924	31,722,841	3,439	10.84
1925	32,384,834	3,133	9.67
1926	33,046,827	3,106	9.40
1927	33,708,820	3,493	10.36
1928	34,370,813	3,176	9.24
1929	35,032,806	2,738	7.82
1930	35,694,802	1,827	5.12
1931	36,503,412	1,366	3.74
1932	37,084,712	1,191	3.21
1933	37,084,712	861	2.32
1934	36,777,112	821	2.23‡
1935	36,777,112	764	2.08‡
1936	37,575,105	568	1.51

* The five following cities are omitted from this summary because data for the full period are not available: Jacksonville, Miami, Oklahoma City, South Bend and Utica.
† Data from Fort Worth lacking.
‡ The rate for the ninety-three cites in 1935 is 2.09 (population 37,437,812, diphtheria deaths 782). The corresponding rate for 1934 was 2.26 and the average for 1930-1934 was 3.34. The rate for the ninety-three cities in 1936 is 1.52 (population 38,249,094, diphtheria deaths 584).

TABLE 15.—*Total Diphtheria Death Rates per Hundred Thousand of Population for Ninety-Three Cities According to Geographic Divisions*

	Population	Diphtheria Deaths		Diphtheria Death Rates			
		1936	1935	1936	1935	1930-1934	1925-1929
New England.....	2,630,017	28	28	1.06	1.07	3.38	8.34
Middle Atlantic.....	13,291,916	87	129	0.65	1.00	2.50	9.97
South Atlantic.....	2,585,257	67	80	2.59	3.38	3.54	7.37*
East North Central..	9,705,898	168	236	1.73	2.45	3.66	11.21†
East South Central..	1,283,423	38	59	2.96	4.75	6.36	6.34
West North Central.	2,775,847	38	59	1.37	2.18	3.22	7.82
West South Central.	1,979,575	87	108	4.39	5.58	6.55	9.24‡
Mountain and Pacific	3,997,161	71	83	1.78	2.09	2.69	6.28

* Lacks data for 1925 for Jacksonville and Miami.
† Lacks data for South Bend.
‡ Lacks data for Oklahoma City for 1925 and 1926.

eral opinion gained by observation and knowledge of local circumstances leads inevitably to the conclusion that the preventive programs so extensively instituted throughout the country are resulting in a lower death rate from diphtheria.

Council on Pharmacy and Chemistry

REPORT OF THE COUNCIL

AT ITS 1936 MEETING THE COUNCIL DISCUSSED THE STATUS OF AMINOPHYLLINE. AS A RESULT OF THE DISCUSSION THE COUNCIL VOTED TO CONTINUE RECOGNITION OF CLAIMS FOR THIS DRUG AS A MYOCARDIAL STIMULANT AND DIURETIC. THE COUNCIL DECIDED THAT THERE IS NO WARRANT FOR CLAIMS OF EFFICACY AS A DILATOR OF THE CORONARY ARTERIES OR OF USEFULNESS IN OVERCOMING PAIN IN CORONARY OCCLUSION OR ANGINA PECTORIS. AS A RESULT OF FURTHER CONSIDERATION THE COUNCIL VOTED THAT CLAIMS FOR ALL OTHER ACCEPTED XANTHINE DERIVATIVES BE SIMILARLY RESTRICTED AND THAT MANUFACTURERS OF ACCEPTED PRODUCTS BE NOTIFIED THAT AFTER OCTOBER 1 ALL ADVERTISING FOR SUCH PRODUCTS MUST CONFORM TO THESE LIMITATIONS.

THE COUNCIL FURTHER AUTHORIZED PUBLICATION OF THE FOLLOWING STATEMENT.

PAUL NICHOLAS LEECH, Secretary.

LIMITATIONS OF CLAIMS FOR AMINOPHYLLINE AND OTHER XANTHINE DERIVATIVES

Few significant studies relating to the action of theobromine and theophylline preparations in cardiovascular disease have appeared since this subject was last reviewed.[1]

Experimentally it has again been demonstrated that these substances cause dilatation of the coronary arteries in dogs[2] and in rabbits.[3] In the latter the effect secured seemed to vary with the concentration of the drug, as it was noted that strong solutions of theobromine with sodium salicylate caused actual vasoconstriction while weaker concentrations produced the more usual vasodilatation. The dilator effect in intact dogs when theophylline ethylenediamine was given intravenously in doses comparable to those used clinically was found to last from six to forty-seven minutes, with an average duration of 21.6 minutes.[2b]

A new experimental approach to a study of the vasodilator effect of these substances was devised by Fowler, Hurevitz and Smith,[4] who noted the effects of theophylline with ethylenediamine on cardiac infarcts produced by ligating the coronary arteries of dogs. When the artery was tied, an area of cyanosis appeared corresponding to the infarcted area. If the drug was then given, the cyanotic area decreased in size. Furthermore, the resulting infarct was smaller in those animals which were treated with daily doses of the drug postoperatively before being killed. From these observations the authors concluded that "theophylline ethylenediamine promotes the development of the collateral circulation in experimentally induced cardiac infarction in the dog. The results justify the use of this preparation in the treatment of disease of the coronary arteries and acute coronary occlusion."

With these conclusions Wiggers and Green[5] are in disagreement. These authors failed to detect significant changes in the inflow rate at high perfusion pressure before and after the use of drugs following experimental coronary occlusion in dogs; nor were they able to prevent contractile failure or to restore contractions to the ischemic area. The drugs used included theobromine and theophylline preparations. Summing up, the authors stated that "a sufficient sampling of possible useful drugs by these methods necessitates, we regret, the conclusion that an increase in collateral circulation sufficient to be of functional use cannot be attained by use of vasodilating drugs after complete coronary occlusion."

Clinically the use of theobromine and theophylline preparations has continued to be widely recommended for the relief of such complaints as cardiac pain, cardiac asthma, paroxysmal dyspnea, Cheyne-Stokes respiration and intermittent claudication. For the most part these reports are uncritical and the observations are uncontrolled. No attempt will be made to review these papers here.

Two carefully controlled studies of the effect of drugs in reducing the frequency of attacks of angina pectoris have been made. In 1933 Evans and Hoyle[6] reported their observations on the effect of thirteen drugs compared with a placebo on the frequency and severity of attacks in a series of patients with angina pectoris. The medications employed included sodium-theobromine, sodium salicylate and aminophylline. In summary the authors stated that "with one exception a measure of improvement appears to result from every remedy tried, and at least as great an improvement during treatment with placebo. This universal efficacy can only be explained by natural variations in the severity of the symptoms, which give a spurious value to each remedy. . . . We have been unable to convince ourselves that any drug tested is worthy even of trial in the routine treatment of the disease." A substantially similar study of theobromine and aminophylline has been made by Gold, Kwit and Otto,[7] who concluded that "the xanthines exert no specific action which is useful in the routine treatment of cardiac pain."

The peripheral vasodilating effect of theobromine and its salts has been studied by measurements of the skin temperature under the necessary carefully controlled conditions. In fifteen patients with peripheral vascular disease, Newell and Allen[8] found that theobromine with sodium salicylate produced an average rise of 1.8 degrees C. and that this lasted about two hours. They concluded that the drug was less effective than other measures but that it might be used as an adjunct to them. An essentially similar conclusion was reached by Scupham.[9] More recently McGovern, McDevitt and Wright,[10] giving large amounts of theobromine with sodium salicylate by mouth and by iontophoresis to patients with vascular disease of the extremities, found it to be a feeble and unreliable vasodilator and concluded that it was valueless in the treatment of peripheral vascular disease.

1. Therapeutic Claims for Theobromine and Theophylline Compounds, Report of the Council on Pharmacy and Chemistry, J. A. M. A. **94:** 1306 (April 26) 1930.

2. (*a*) Gilbert, N. C., and Fenn, G. K.: The Effect of the Purine Base Diuretics on the Coronary Flow, Arch. Int. Med. **44:** 118 (July) 1929. (*b*) Stoland, O. O.; Ginsberg, A. M.; Loy, D. L., and Hiebert, P. E.: Studies on Coronary Circulation: IV. A. The Duration of the Coronary Dilator Action of Theophylline Ethylenediamine, J. Pharmacol. & Exper. Therap. **51:** 387 (Aug.) 1934.

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5. Wiggers, C. G., and Green, H. D.: The Ineffectiveness of Drugs upon Collateral Flow After Experimental Coronary Occlusion in Dogs, Am. Heart J. **11:** 527 (May) 1936.

6. Evans, William, and Hoyle, Clifford: The Comparative Value of Drugs Used in the Continuous Treatment of Angina Pectoris, Quart. J. Med. **2:** 311 (July) 1933.

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8. Newell, C. E., and Allen, E. V.: The Peripheral Vasodilating Effect of Theobromine Given Orally and Intravenously, J. Tennessee M. A. **27:** 291 (Aug.) 1934.

9. Scupham, G. W.: Effect of Theobromine on Peripheral Vascular Disease: Clinical Observations, Arch. Int. Med. **54:** 685 (Oct.) 1934.

10. McGovern, Teresa; McDevitt, Ellen, and Wright, I. S.: Theobromine Sodium Salicylate as a Vasodilator, J. Clin. Investigation **15:** 11 (Jan.) 1936.

NEW AND NONOFFICIAL REMEDIES

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR ADMISSION TO NEW AND NONOFFICIAL REMEDIES. A COPY OF THE RULES ON WHICH THE COUNCIL BASES ITS ACTION WILL BE SENT ON APPLICATION.

PAUL NICHOLAS LEECH, Secretary.

PROCAINE-ABBOTT (See New and Nonofficial Remedies, 1937, p. 69.

The following dosage form has been accepted:

Ampoules Procaine Hydrochloride Solution 2%, 1 cc.: Each cubic centimeter contains procaine hydrochloride 0.02 Gm., sodium chloride 0.005 Gm., and distilled water to make an isotonic solution of 1 cc.

DIGIPOTEN (See New and Nonofficial Remedies, 1937, p. 192).

The following dosage forms have been accepted:

Digipoten Tablets 0.05 Gm. (¾ grain): Each tablet contains ½ U. S. P. digitalis unit.

Digipoten Tablets 0.1 Gm. (1½ grains): Each tablet contains 1 U. S. P. digitalis unit.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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SATURDAY, JUNE 26, 1937

AMERICAN MEDICAL ASSOCIATION'S ACTION ON PREVENTION OF CONCEPTION AND OTHER PROBLEMS

Seldom if ever has there been a session of the House of Delegates of the American Medical Association attended with more nation-wide interest than has developed from the annual session of 1937. The actions of the House of Delegates recorded in the current issue of THE JOURNAL are an indication of the numerous problems that concerned the delegates. Aside from matters that specifically affect the intimate work of the organization and of the headquarters office, special recommendations were introduced dealing with motor vehicle accidents, with a change in the methods of choosing the time and place of the annual session, with the prescribing of barbituric acid and derivative drugs, with the campaign against syphilis, with various problems involving governmental action in relationship to medical practice, with the creation of a distinguished service award, with legislation on medical defense, with the practice of ophthalmology, with psychiatric research, and with many other subjects.

The numerous representatives of the press who besieged the House of Delegates, both in and out of executive session, did their utmost to present an accurate picture of the events that occurred. Unfortunately, by modern methods of news gathering and publication, the story written on the spot may be subjected to editing in the publisher's office; moreover, headlines are invariably written far distant from the scene of action and under the pressure of limitation on time. The reason for these animadversions is the furor that has been created relative to lack of understanding of just what the House of Delegates did, particularly on the subject of the prevention of conception.

Attention is called first to a most significant statement in the opening remarks of the committee. The committee said:

> The present report of the committee is limited to a consideration of the prevention of conception only as it refers to the relationship of physician and patient.

If any interpretation of this succinct and clear statement is made, it follows in the next paragraph, which emphasizes the fact that there is no law to prevent doctors who work in dispensaries from furnishing indigent patients with any information that may lawfully be furnished to private patients. "In all cases," says the report, "the legal justification is the medical need of the patient." For this reason the committee of the House of Delegates emphasizes particularly its belief that "all dispensaries, clinics and similar establishments where information and advice concerning the prevention of conception are given to the public . . . should be under legal licensure and supervision and under medical control." Later the committee again points out that it is concerned only with the frequent occurrence in medicine of indications for the prevention of conception, and for that reason the committee recommended that the medical aspects of both sterility and fertility should be taught in medical schools. Recognizing further that the intelligent, voluntary spacing of pregnancies may be desirable for the health and general well being of mothers and children, the committee points out, and the House of Delegates accepted the fact, that no arbitrary interval can be stated, that innumerable factors must be considered from a health point of view, and that each case must be determined by the individual judgment of parents and physicians, based on the conditions present.

The conclusions as accepted by the House of Delegates, appear in this issue of THE JOURNAL on page 2218. The wish of the House of Delegates is made especially clear in its addendum to the report of the committee; namely, "emphasizing the fact that all considerations in this report on the subject of the prevention of conception have their application only in conditions arising in the relation of physician and patient."

Of utmost significance are the amendments to the Constitution and By-Laws of the American Medical Association which are brought out in full on page 2216. The term "contract practice" is now defined to include agreements which involve political subdivisions as well as the agreements between physicians and corporations or organizations. Moreover, the President is now empowered to appoint investigating juries to which the Judicial Council may refer complaints or evidence of unethical conduct which in its judgment are of greater than local concern. Such action will do much to maintain the high ideals of medical practice which represent the standard of the American Medical Association.

Understanding of some of the other problems which developed and with which the House of Delegates was concerned is clouded in some instances by the difficulty of ascertaining the exact facts concerning situations that have developed in governmental circles. Everything is being done that can be done to secure the necessary information on which the Board of Trustees may take suitable action in accordance with the responsibilities placed on it by the House of Delegates.

GASTRIC ACIDITY AND EXPERIMENTAL ULCER

Recently evidence was discussed [1] in support of the view that ulcers produced in the gastro-intestinal tract of dogs by certain experimental procedures are due chiefly to the corrosive action of excessive amounts of free acid in the chyme. The increase in the free acidity of the gastric contents may result from either an increased secretion of acid, as some believe to be the case frequently in human ulcer, or from a decrease in the amount of available neutralizing alkali, particularly in the duodenum. The latter factor appears to be of primary importance in the production of ulcer in dogs by surgical procedures. It was stated also that within wide limits the concentration of pepsin appears of little importance, granted of course, that some of the enzyme is present.

Recently also further studies on ulcers produced surgically in the dog have been reported.[2] This work likewise serves to emphasize the etiologic importance of unneutralized gastric acidity in the production of this type of ulcer and the essential rôle of the alkaline duodenal secretions in the prevention of the lesion. In addition, the observations indicate that there are differences between the efficacy of the bile, of the pancreatic juice and of the secretion of the duodenum itself in inhibiting ulcer formation. Sixty healthy dogs were used in the investigation. The pylorus was severed and the gastric and duodenal ends were closed; continuity of the gastro-intestinal tract was then reestablished by an anterior gastrojejunostomy. The animals were divided into four groups, one of which, consisting of twenty dogs, served as controls. In a second group of ten dogs the accessory pancreatic ducts were ligated and severed and the main pancreatic duct was transplanted into the terminal portion of the ileum. In a third group of twenty dogs the common bile duct was transplanted into the ileum, and in the fourth group both the main pancreatic duct and the bile duct were transplanted into the ileum. Thus the experimental animals differed in only one respect, namely, the presence or absence of bile or pancreatic juice in the duodenum, and hence the contact of these fluids with the gastrojejunal anastomosis.

In the control animals in which only a gastrojejunostomy was performed, typical subacute and chronic ulcer formation was observed near the gastrojejunal anastomosis in 50 per cent of the animals. Ulcers developed in the same location in 70 per cent of the dogs in which the pancreatic duct alone was transplanted, in 90 per cent of those in which the common bile duct alone was transplanted, and in 100 per cent of those in which both the pancreatic and common bile ducts were transplanted. These observations again emphasize the importance of the alkaline duodenal fluids in inhibiting the development of experimental ulcers of this type and, in addition, appear to warrant the conclusion that, "of all the constituents of the alkaline duodenal juices, bile has the most significant and effective influence in preventing the formation of jejunal ulcer; the duodenal secretion, the succus entericus, is the least important, and the pancreatic juice is midway between the two in this respect." These results add further to the growing mass of evidence that the amount of free acid present in the gastric chyme is a primary factor in the etiology of at least the experimental type of ulcer of the gastro-intestinal tract.

1. Gastric Acidity and Experimental Ulcer, editorial, J. A. M. A. **107**: 2052 (Dec. 19) 1936.
2. DeBakey, M. E.: Peptic Ulceration: The Relative Protective Value of the Alkaline Duodenal Juices, Arch. Surg. **34**: 230 (Feb.) 1937.

TEST TUBE SYNTHESIS OF SPECIFIC ANTIBODIES

A quarter of a century ago Carrell and Ingebrigsten [1] of the Rockefeller Institute reported that fragments of guinea-pig bone marrow (or lymph glands) suspended in homologous blood plasma will form specific hemolysins against goat erythrocytes if these foreign red blood corpuscles are added to the culture medium. This apparent test tube synthesis of specific antibodies was consistent with the generally accepted side chain theory of immunity, which was not seriously challenged at that date. Many immunologists were skeptical, however, of the reported results. In attempting to confirm this alleged test tube production of specific antibodies, Kuczynski, Tenenbaum and Werthemann, Sato, Kimura, Bloom and a half dozen others failed.[2] Sato could find no trace of antibody synthesis in his tissue cultures. A few of his cultures did show traces of apparent antibody production, titers as high as 1:16 being obtained, for example, with 1:4 titers in his control tubes. (Serologic titers of 1:40,000 or even 1:100,000 are readily obtained in intact animals.) Recent experimental studies by Salle and McOmie [2] of the University of California have led to the quite definite conclusion that "neither precipitins, agglutinins nor hemolysins are produced as a result of the addition of homologous antigens to tissue cultures." The tissues tested by the California investigators were splenic, pulmonary and bone marrow explants from embryonic chickens, guinea-pigs and rabbits.

Several investigators have modified the original Carrel-Ingebrigsten tissue technic. Ludke, Kuczynski, Tenenbaum and Werthemann, for example, injected rabbits and guinea-pigs intravenously with large doses of killed bacteria and made explants from the spleen or bone marrow of the injected animals. These explants contained numerous phagocyted bacteria. After five days' incubation the antigen laden explants yielded no traces of specific bacterial agglutinins. Przygode,

1. Carrel, Alexis, and Ingebrigsten, R.: J. Exper. Med. **15**: 287, 1912.
2. Salle, A. J., and McOmie, W. A.: J. Immunol. **32**: 157 (Feb.) 1937. (Extensive bibliography.)

Reiter, Meyer and Loewenthal, and Sato, in contrast, obtained positive evidences of specific agglutinin production by this technic, titers as high as 1:160 being reported in Sato's papers.

Since all this conflicting evidence was obtained by application of the earlier, relatively crude, methods of tissue culture a reinvestigation of the entire problem seemed desirable. Landsteiner and Parker[3] of the Rockefeller Institute therefore transplanted fragments of adult rabbit spleen into the most favorable modern tissue culture medium thus far developed. This medium consisted of three parts of normal (autogenous) rabbit serum, one part of isotonic sodium bicarbonate (1.4 per cent) and two parts of Tyrode's solution containing four times the usual amount of dextrose, to which was added 0.005 per cent of phenol red to serve as an indicator. Each flask was supplied daily with an atmosphere consisting of 80 per cent oxygen, 8 per cent carbon dioxide and 12 per cent nitrogen. This medium and method of cultivation preserves a splenic fragment in a high degree of functional activity without stimulating excessive proliferation of its cytologic elements.

The New York investigators found that fragments of adult rabbit spleen removed from the animals two to three days after intravenous injections with guinea-pig erythrocytes almost invariably produce hemagglutinins for guinea-pig red blood corpuscles, titers often reaching 1:320. Control tests with duplicate cultures kept at 4 C. showed no hemagglutinin production. The New York investigators, however, were surprised to find that under the same cultural conditions splenic fragments taken from rabbits injected from one to twenty-four hours previously failed to produce demonstrable antibodies. This indicates that the production of antibodies by splenic explants depends on certain preparatory adaptations occurring in intact animals, which reactions are not completed till the second or third day after intravenous injection of a given antigen. Spleens taken from animals injected twenty-four hours previously and cultivated in fully prepared serum (i. e., serum taken from control rabbits injected three days previously) also yielded negative results. This indicates that serologic preparation or adaptation alone is not sufficient to insure in vitro antibody production. The fixed tissues themselves must apparently undergo a supplementary in vivo preparation. Parallel injections with nonviable bacterial antigens (e. g., Vibrio metchnikovii) confirmed these conclusions.

The authors conclude that, "in view of the positive results obtained when the antigen was allowed to remain from two to three days in the [intact] animal, the negative results obtained when this period was shortened . . . antibody production [must be a much] more complicated process than is usually assumed." No new theory as to the nature of this preliminary in vivo preparation of serum and fixed tissue cells, however, is suggested by these authors. In the light of their results, however, the recently alleged neurologic integration of antibody-producing tissues (or functions) seems worthy of detailed investigation.

3. Parker, R. C.: Science **85**: 292 (March 19) 1937.

SUPERVITAMINOSIS AND TUBERCULOSIS

Much of the present-day commercial exploitation of vitamins and vitamin-rich foods is based on a belief that excessive intakes will increase the resistance of normal persons to microbic infections. Abundant experimental evidence supports the view that prolonged vitamin deficiencies do decrease antimicrobic resistance, but the data regarding the immunologic effects of superabundant vitamins are inadequate. An experimental study of the possible immunologic benefits of superfluous vitamin C has been reported by Heise and Martin[1] of the Trudeau Sanatorium.

Fifteen normal guinea-pigs were fed a stock ration consisting of carrots, hay, lettuce and oats. Five animals were used as controls and were not given additional vitamins. The other ten were given each a daily intra-abdominal injection of 20 mg. of crystalline cevitamic acid in the form of a neutral salt. After a seven day period, both control and vitamin-treated animals were injected with 300,000 tubercle bacilli into the groin. The daily injections of vitamin C were continued in the test group for five more months. No differences were noted in the two groups. At the end of this period one of the control animals died. All the remaining animals were then killed and necropsies performed.

The degree of tuberculosis in each animal was estimated on the basis of a possible maximum 4+ for each organ: lungs, spleen, liver and lymph nodes. Averaging the results gave a severity of 3+ for the control animals and of 2.2+ for the vitamin-treated group. Enlarged inguinal glands with marked caseation were found in both. The spleen was enlarged in both and thickly studded with tubercles, as was the liver. The lungs were involved to a lesser extent in both the treated and untreated groups.

Those observations were interpreted as establishing the fact that no significant differences exist between the extent and spread of experimental tuberculosis in guinea-pigs on a normal diet and in those having an excessive intake of cevitamic acid. Two possible criticisms of the experimental methods were recognized: The relatively large dose of tubercle bacilli might have masked slight differences in resistance, or undetected differences might have been shown by a study of the survival time, provided a sufficiently large number of animals for statistical reliability had been available. The results, nevertheless, are interesting because of their failure to demonstrate any experimental support for excessive vitamin C administration in tuberculosis.

1. Heise, F. H., and Martin, G. J.: Proc. Soc. Exper. Biol. & Med. **35**: 337 (June) 1936. Reprinted in the Fifty-Second Annual Medical Report of the Trudeau Sanatorium.

Current Comment

COORDINATION OF ARMED AND CIVILIAN MEDICAL SERVICES

There seems at this time to be but little evidence that pacifism is gaining or that the campaign against wars is making appreciable progress throughout the world. It is more difficult, says Armstrong [1] in a recent article on this subject, for the civilian physician than it is for a member of the naval or military medical services to contemplate war. If war does come, medicine or the lack of it will, as it always has, play an extremely important part in the outcome. In past centuries, indeed, the lack of adequate medical service has destroyed more armies than have been destroyed by armed forces. While in the last war this was no longer true, medical preparedness must recognize the fact that future wars will not be waged exactly like the last one. The element of surprise and the unpreparedness of the defender play an important part in the medical problems of any nation. Moreover, it is already clear that in future conflicts civilian populations will suffer severely either directly or indirectly. Poison gases and demolition bombs, which are the two most effective weapons of bombardment aviation, will probably be utilized to a great extent; hence civilian physicians become immediately as important as members of the regular medical services. Armstrong recommends therefore that civilian physicians prepare themselves for wartime rôles by enlistment in the active reserves or by individual efforts to coordinate the work of the two branches of medicine. The latter objective can best be obtained through the medical and dental schools, the local and state health boards, the medical societies, special organizations, the Veterans' Administration, the U. S. Public Health Service and the organized reserves and National Guard.

1. Armstrong, H. G.: The Importance of Coordinating the Military and Naval Medical Services with the Civilian Medical Profession, Mil. Surgeon **80:** 171 (March) 1937.

NEUROGENIC THEORY OF ANAPHYLAXIS

Earlier immunophysiology assumed that allergic and immune reactions are initiated by the central nervous system or at least mediated through it. Recently Metalnikov [1] of the Pasteur Institute, Paris, reasserted his belief that in immunizing laboratory animals we are immunizing principally a hypothetic "immunity center" in the central nervous system, which in turn "directs the sensitivity of peripheral tissues." From this theory several European clinicians have concluded that therapeutic blockade or surgical interruption of the connection of the "immunity center" with peripheral tissues would prevent anaphylactic reactions in these tissues. Such a blockade has been attempted by alcohol injections [2] and by regional sympathectomy.[3] Most immunologists are convinced that local anaphylaxis is wholly independent of central nervous connections. Ajo and Arthus [4] of the Laboratory for Organotherapeutic Research, Garches, France, for example, have recently retested this belief so far as it relates to the local anaphylactic reaction technically known as the Arthus phenomenon in rabbits. First they studied the effects of unilateral resection of the sciatic nerve in hypersensitive rabbits. They found that the Arthus reaction takes place with the same promptness and severity in the leg thus deprived of all sensory, motor and "trophic" connection with the central nervous system as in the control leg. To test the effects of sympathetic innervation, these investigators removed the left cervical ganglion in hypersensitive rabbits, causing sympathetic paralysis of the left ear. Both ears were then tested by subcutaneous injection with the same dose of specific foreign protein. The Arthus phenomenon occurred with equal promptness and equal severity in the two ears, the only observed difference being a slightly more rapid recovery on the sympathectomized side, presumably because of the hyperemia and hyperthermia of the paralyzed ear. The authors do not assume that this slightly accelerated rate of recovery is of practical clinical significance.

1. Metalnikov, S. I.: Rôle du système nerveux dans l'immunité, Paris, Masson & Cie, 1934, p. 151.
2. Levin, G. L. L.: Lancet **2:** 249 (Aug. 4) 1934.
3. Godard, H.: Presse méd. **43:** 1220 (July 31) 1935.
4. Ajo, Corrado, and Arthus, André: Compt. rend. Soc. de biol. **124:** 1045, 1937.

THE HYPOPHYSIS AND IMMUNITY

Clinical observation has suggested a relationship between hypophysial function and immunity, characterized, for example, by a statistically subnormal antimicrobic resistance in acromegaly and an increased resistance in Cushing's disease.[1] Experimental confirmation has been recently reported by Churg [2] of the Institute for General and Experimental Pathology, Vilna, Poland. Confirming the previous investigations by Druckrey,[3] he found that daily intravenous injections of the gonadotropic substance from human pregnancy urine were without apparent effects on the blood coagulation time of male rabbits. In normal female rabbits, however, the same substance caused a transient decrease in blood coagulability followed by shortening of the coagulation time. The increased coagulability persisted for several weeks after cessation of the injections. No similar results were observed in parallel tests of ovariectomized female rabbits. Females given daily subcutaneous or intravenous injections had an initial 100 per cent increase in serum complement titer, followed by a fall to about 50 per cent of the normal. This subnormal titer persisted for several weeks after cessation of the injections. No effects were demonstrable in the complement of male rabbits or in ovariectomized females. Churg concluded that the gonadotropic substance of pregnancy urine acts indirectly on the serum through stimulation of the female sex glands. Partial confirmation of this view was obtained by the injection of estrogen into ovariectomized females, which caused typical fluctuations in blood coagulability and complement titer. Progestin injections, however, were without demonstrable effect. Churg's tentative explanation of the observed effects is based on Fuchs's [4] theory of the identity of prothrombin and "komplementmittelstück." The greater the extent of transformation of prothrombin into thrombin, the less prothrombin is available for complement action.

1. Höring, F. O.: Ztschr. f. klin. Med. **129:** 627, 1936.
2. Churg, J.: Ztschr. f. Immunitätsforsch. **89:** 488 (Dec.) 1936.
3. Druckrey, H.: Endocrinologie **12:** 1, 1933.
4. Fuchs, H. J.: Ztschr. f. Immunitätsforsch. **69:** 330, 1930.

PROCEEDINGS OF THE ATLANTIC CITY SESSION

MINUTES OF THE EIGHTY-EIGHTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT ATLANTIC CITY, JUNE 7-11, 1937

(Continued from page 2145)

HOUSE OF DELEGATES

Second Meeting—Tuesday Morning, June 8

The House of Delegates was called to order at 9:45 a. m. by the Speaker, Dr. Nathan B. Van Etten.

Roll Call

It was moved by Dr. A. T. McCormack, Kentucky, seconded by Dr. William D. Johnson, New York, and carried, that the House dispense with the roll call.

Presentation of Minutes

On motion of Dr. Arthur J. Bedell, Section on Ophthalmology, seconded by Dr. A. T. McCormack, Kentucky, and carried, the House dispensed with the reading of the minutes.

Report of Reference Committee on Credentials

Dr. Benjamin F. Bailey, Chairman, reported that additional delegates had been registered since the previous report of the committee, making a total registration of 165. He requested several members of the House who had not signed attendance slips to do so immediately.

Report of Board of Trustees

Dr. Austin A. Hayden, Secretary of the Board of Trustees, presented the following report of the Board, which was adopted on motion duly made, seconded by Dr. Arthur J. Bedell, Section on Ophthalmology, and carried:

Resolutions Recommending Establishment of Council on Medical Ethics and Economics introduced by Dr. Carl F. Vohs, Missouri: The Association already has a Bureau of Medical Economics and a Judicial Council. The Board of Trustees suggests that, if the changes outlined in the resolutions are desired, suitable amendments to the Constitution and By-Laws should be introduced in the prescribed manner.

Resolution on Production of Educational Films introduced by Dr. C. A. Dukes, California: The Board has already studied the question of the education of the public with motion picture films and will be glad to give consideration to future needs in this respect as they arise.

Resolution on Program of Public Education introduced by Dr. Fred Moore, Iowa: Here again the Board would report that it has given long and earnest consideration to the development of a program of public education. The Bureau of Health and Public Instruction has developed an extensive program for the education of the public, and its efforts along this line have been approved by the House of Delegates. The Board of Trustees will be glad to give consideration to further development of this plan as the need arises.

Resolution on Investigation into Conduct of Magazine HYGEIA introduced by Dr. Walt P. Conaway, New Jersey: The Board would report that it has constantly endeavored to guard against the abuses recited in this resolution. It has ever been the policy of HYGEIA to instruct the public in sound medical science and particularly as to the value and importance of the physician in procuring suitable medical care. The Board is glad to take this opportunity again to reiterate its policy in this respect.

Resolution on Review of Motion Picture Films introduced by Dr. Thomas P. Farmer, New York: The Board of Trustees respectfully suggests that it has established in the headquarters office a Bureau of Exhibits which has available information concerning scientific films of value for those wishing such information. In cases in which films are used to exploit medicaments or physical apparatus, the Council on Pharmacy and Chemistry and the Council on Physical Therapy may be asked for an opinion concerning the products mentioned.

Resolutions on Presentation of Exhibit of the American Medical Association at San Francisco International Exposition introduced by Dr. Elbridge J. Best, California: As plans become more mature, the Board of Trustees will gladly consider the cost and the advisability of an exhibit at the San Francisco International Exposition as these matters are presented.

Report of Reference Committee on Reports of Board of Trustees and Secretary

Dr. Floyd S. Winslow, Chairman, presented the following report:

REPORT OF BOARD OF TRUSTEES

1. Dr. Charles Gordon Heyd, President: Your committee joins with the Board of Trustees and the Members of the American Medical Association in regretting the untimely death of Dr. James Tate Mason, President of this Association. It approves the action of the Board of Trustees in electing as President the Vice President, Dr. Charles Gordon Heyd, and it commends Dr. Heyd for his faithful performance of the many presidential duties during the past year.

2. Business Operations: The increase in gross earnings and miscellaneous income and the increase in expenditures for wages, salaries and other items reflect the widening of the activities of the Association in advancing the interests of its membership and meets with the approval of this committee.

3. Building and Equipment: Additions to building and equipment have kept pace with the increased demands of the work of the Association and are approved of by this committee, which furthermore approves of the contemplated additions to the equipment.

4. THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION: Your committee congratulates THE JOURNAL on maintaining its leadership in its field of medical publication. It commends the management of THE JOURNAL for its foresight in the publication of "The Pharmacopeia and the Physician." It feels that this department has been serviceable to the membership and is in favor of the cooperation existing between THE JOURNAL and the United States Public Health Service in the work on venereal diseases. It is also in favor of the work of THE JOURNAL in the correspondence with other countries on the subject of economic and social relations of medical practice and commends the intensive development of the Department of Queries and Minor Notes and the efforts put forth to maintain high standards in medical education and practice.

5. Special Journals: The publications covering dermatology and syphilology, neurology and psychiatry, pediatrics, internal medicine, surgery, pathology, ophthalmology and otolaryngology are of the highest character and should be sources of great pride to the Association and to the respective specialties because of their completeness, usefulness and the clean character of their advertising pages. The growing competition in these fields of other journals by commercial concerns not maintaining advertising standards comparable to those of the periodicals of this Association is viewed with genuine alarm, since subscription support is thereby withdrawn in some measure from these journals. This is particularly noticeable in one periodical formerly published at a profit and now at a marked loss. At the present time your committee has reason to believe at least one certain specialty whose periodical is now operating at a loss contemplates the launching of a new journal to be pub-

lished by a commercial house. Your committee feels that this is most regrettable and whole-heartedly agrees with the Board of Trustees in issuing its warning that if the members of the specialties do not give their whole-hearted support to their journals it may become necessary to consider seriously the advisability of suspending publication of those special journals responsible for the large part of the losses incurred.

6. HYGEIA: Your committee feels that HYGEIA furnishes a constant and valuable source of information to its readers. The financial loss to the Association through the publication of this periodical in 1936 was less than half the loss during 1935. Your committee recommends that the publication of HYGEIA be continued.

7. The Library: Your committee recognizes in the Library one of the vital activities of our organization. It approves the provision of larger quarters for the Library and for increased activities in this department.

8. Cooperative Medical Advertising Bureau: Your committee is glad to note the wide support this bureau is receiving from the majority of the constituent medical associations and recommends that other state journals take steps to ally themselves with this department.

9. Division of Food, Drugs and Physical Therapy: Your committee commends the formation of this division and the creation of a committee on policy representing the three councils and believes that this plan will increase the efficiency of the work of these councils.

10. Council on Pharmacy and Chemistry: Your committee views with interest the ever increasing work of the Council on Pharmacy and Chemistry; it feels that this council renders valuable service to our membership by its investigations, and it recognizes the difficulties in connection with the selection of names for newly discovered therapeutic agents, particularly in the nomenclature of endocrine principles. Your committee is sensitive to the value of the work done on investigation of catgut sutures and nonspecific protein therapy. It approves the efforts of the Council and recommends that they be continued. This council deserves and should have the wholehearted support of the medical profession in its efforts to maintain rationalism in the field of therapy.

11. Council on Physical Therapy: Your committee feels that one of the most important functions of the Association is the investigation and publication of reports on the use of physical therapy apparatus by this council. It also looks with favor on the educational activities of this council in its work with our constituent state and component county societies, whose members have received information of value by this means.

12. Council on Foods: Your committee feels that the efforts of this council tend to maintain high standards for food products and also improvement in the nature of advertising them. The reports on the nutritional significance of various classes of foods are of value to the general practitioner of medicine. During the past year the reports on the vitamins have been especially helpful.

13. Chemical Laboratory: The work of this laboratory continues to be of great value to our organization from the standpoint of its independent investigations and investigations of matters referred to it by the Council on Pharmacy and Chemistry and the Bureau of Investigation.

14. Bureau of Investigation: Your committee feels that the Bureau of Investigation has been of important assistance to the federal government and to better business bureaus and urges the continuance of this department.

15. Bureau of Exhibits: Your committee emphasizes the desirability of the continuance of the work of the Bureau of Exhibits in cooperation with the work of the Committee on Scientific Exhibit.

16. Extension of Medical Service to the Indigent: Your committee approves the attitude of the Board of Trustees in announcing its willingness with other organizations to make plans for providing medical service to the indigent.

17. Motion Picture on Syphilis: Your committee feels that the cooperation of the American Medical Association with the United States Public Health Service for better control of venereal disease is desirable.

18. Report of the Committee to Study Air Conditioning: In view of the importance of further study of air conditioning your committee recommends that the investigation of this committee be continued.

19. Report of the Committee on Asphyxia: Your committee recommends that the report of the Committee on Asphyxia be accepted and that the power requested be granted, with the exception that there be omitted from the report the following: "Your committee suggests the desirability of taking over the work and carrying on the program initiated and maintained for the last four years by the Society for the Prevention of Asphyxial Death. Informative material accumulated by this organization might be filed by the committee for the use of the Association and contacts with organizations and groups interested in the prevention of asphyxial death may be preserved and developed."

REPORT OF SECRETARY

The lucid report of our ever faithful Secretary deserves hearty commendation. The disparity that exists between "members" and "Fellows" suggests the wisdom of frequent appeal to "members" to become "Fellows," in order to increase the solidarity of our organization.

Substitution of the Organization Section of THE JOURNAL for the BULLETIN should be continued for another year to determine whether the new order of publication will fulfil its purpose.

The Annual Conference of Secretaries of Constituent State Medical Associations is indorsed. In event of an expectant absence of a state secretary from these gatherings, provision should be made to send the duly authorized alternate, as the loss to a given state society cannot be atoned for until the following year. Agenda could readily include topics for discussion, not fully decided by the House of Delegates, thereby paving the way for future action by the House.

The untiring work of the Secretary and his personnel in maintaining personal relation with county societies and with the humblest members of the American Medical Association serves to exemplify the finest traditions of our organization and your committee hereby commends our Secretary and his assistants on the completion of another successful year's work for our membership.

Respectfully submitted.

FLOYD S. WINSLOW, Chairman.
ARTHUR C. MORGAN.
C. L. CUMMER.
J. F. SILER.
MCLAIN ROGERS.

On motions duly made, seconded and carried, the report of the reference committee was adopted section by section and as a whole.

Invitation to Hon. J. Hamilton Lewis

Dr. W. C. Woodward, Director, Bureau of Legal Medicine and Legislation, reported that in accordance with instructions he had communicated with Hon. J. Hamilton Lewis, United States Senator from Illinois, who stated that he would be glad to appear before the House of Delegates on Thursday or Friday, June 10 or 11.

After discussion of a motion to invite Senator Lewis to appear before a special session of the House on Thursday morning, June 10, the matter was referred to the Reference Committee on Executive Session.

Report of Reference Committee on Reapportionment

Dr. Walter F. Donaldson, Chairman, presented the following report, which was adopted on motion of Dr. Donaldson, seconded by Dr. H. B. Everett, Tennessee, and carried:

The present apportionment of delegates is on the basis of one delegate for each 775 members or fraction thereof. Each constituent association is represented by at least one delegate irrespective of the number of members.

The By-Laws specifically provide that the total membership of the House of Delegates shall not exceed 175. The total membership of the Association on April 1, as recorded in the office of the Secretary, was 105,460.

An apportionment on the basis of one delegate for each 800 members would produce a total of 178 delegates, three more than are permitted by the By-Laws.

On the basis of one delegate for each 825 members, the total membership of the House would be 174, which is two more than the present membership. On this basis, Massachusetts and the Philippine Islands would each gain one delegate, New York would gain two delegates, and Missouri and Oklahoma would each lose one delegate.

On the basis of one delegate for each 850 members, the total membership of the House would be 170. On this basis, New York and the Philippine Islands would each gain one delegate, while Missouri, Oklahoma, Tennessee and Texas would each lose one.

Number of Delegates Based on Different Ratios

State	Number of Members, 4/1/37	Bases of Apportionment and Number of Delegates Under Each 825	850
Alabama	1,472	2	2
Arizona	316	1	1
Arkansas	1,051	2	2
California	5,695	7	7
Colorado	1,139	2	2
Connecticut	1,543	2	2
Delaware	198	1	1
District of Columbia	783	1	1
Florida	1,178	2	2
Georgia	1,807	3	3
Idaho	257	1	1
Illinois	7,287	9	9
Indiana	2,958	4	4
Iowa	2,416	3	3
Kansas	1,529	2	2
Kentucky	1,712	3	3
Louisiana	1,328	2	2
Maine	700	1	1
Maryland	1,379	2	2
Massachusetts	4,962	7	6
Michigan	3,742	5	5
Minnesota	2,347	3	3
Mississippi	995	2	2
Missouri	3,201	4	4
Montana	339	1	1
Nebraska	1,069	2	2
Nevada	101	1	1
New Hampshire	455	1	1
New Jersey	3,193	4	4
New Mexico	236	1	1
New York	15,047	19	18
North Carolina	1,591	2	2
North Dakota	387	1	1
Ohio	5,361	7	7
Oklahoma	1,524	2	2
Oregon	755	1	1
Pennsylvania	8,588	11	11
Rhode Island	488	1	1
South Carolina	874	2	2
South Dakota	323	1	1
Tennessee	1,669	3	2
Texas	4,159	6	5
Utah	416	1	1
Vermont	376	1	1
Virginia	1,725	3	3
Washington	1,398	2	2
West Virginia	1,194	2	2
Wisconsin	2,349	3	3
Wyoming	143	1	1
Alaska	37	1	1
Hawaii	257	1	1
Isthmian Canal Zone	95	1	1
Philippine Islands	969	2	2
Puerto Rico	347	1	1
United States Army		1	1
United States Navy		1	1
United States Public Health Service		1	1
1 for each Scientific Section		15	15
		174	170

The total voting membership of the House of Delegates shall not exceed 175.

The committee recommends that the apportionment of delegates for the next three years be made on the basis of one delegate for each 825 members or fraction thereof. Each state medical association, irrespective of the number of members, no matter how small its membership may be, is entitled to one delegate. On this basis, the membership of the House will be 174.

Respectfully submitted.

WALTER F. DONALDSON, Chairman.
H. B. EVERETT.
CHARLES J. WHALEN.
N. B. VAN ETTEN.
OLIN WEST.

Report of Reference Committee on Sections and Section Work

Dr. James E. Paullin, Chairman, presented the following report:

Mr. Speaker and Members of the House of Delegates:

1. Your Reference Committee on Sections and Section Work has studied with interest and pride the report of the Council on Scientific Assembly.

Your committee commends the activity of the Council for the meticulous care used in the selection of subjects and the preparation of the program which has been furnished for the general scientific sessions and for the various section meetings. Such a well balanced program evidences the general interest of the Council in stimulating and advancing medical science and supplying useful and timely information.

2. Perusal of the program of the Scientific Assembly gives evidence of the importance of the scope and range of the activities of the Council in furnishing this short postgraduate course of instruction in general medicine, surgery and the various specialties. One is impressed with the fund of information available in the various sectional and general meetings.

3. In particular, your committee commends the innovation this year of a division of the general sessions program on Tuesday into a section devoted to the discussion of general medical topics and a section devoted to a discussion of outstanding surgical problems. Such a division gives promise of increasing the function of the general sessions within the time normally allotted the scientific program.

4. In view of the recent nation-wide interest manifested in venereal diseases, your committee commends the Council on Scientific Assembly for presenting a Symposium on Syphilis.

5. Your committee again calls attention to the wealth of material available in the Scientific Exhibit. A study of the Exhibit offers an easily assimilable summary of the present day advances in medicine and surgery.

6. Referring to the comments of the Council on Scientific Assembly concerning a proposed change in the By-Laws of the American Medical Association, namely, section 13, chapter XIV: "A Fellow shall present no more than one paper at any Scientific Assembly," a study of the minutes of the 1936 session of the House of Delegates reveals that no such amendment to the By-Laws was offered for consideration. Your committee believes that the purpose of the suggestion previously made was to give an opportunity to a greater number of Fellows to appear on the program of the sections. Your committee strongly urges that in the preparation of section programs the name of a Fellow either to present or to discuss a paper appear only once. This has no reference to the general scientific program.

7. The resolutions from the Section on Obstetrics, Gynecology and Abdominal Surgery request a change in name of a section which would necessitate a change in By-Laws and is without the jurisdiction of this committee. Your committee recommends that the resolutions be referred to the Council on Scientific Assembly for action, with the recommendation from this committee, however, that the request of the section be granted.

Respectfully submitted.

JAMES E. PAULLIN, Chairman.
ARTHUR J. BEDELL.
ELBRIDGE J. BEST.
CHARLES R. SCOTT.

On motions of Dr. Paullin, duly seconded and carried, the report of the reference committee was adopted section by section and as a whole.

Report of Reference Committee on Hygiene and Public Health

Dr. James Q. Graves, Chairman, presented the following report:

1. Resolutions on the Family Physician and the School Child introduced by Dr. Burt R. Shurly, Section on Laryngology, Otology and Rhinology: Your committee has carefully considered these resolutions and with the approval and consent of

Dr. Shurly, who introduced them, submits the following substitute resolutions:

WHEREAS, The family physician has labored for these many years without full recognition of his valuable services; and

WHEREAS, The various school systems of the United States depend on the family doctor for the prevention and diagnosis of disease and the protection of the public; therefore be it

Resolved, That the school boards and authorities in charge of the school systems all over our country be respectfully requested to enter and file on the index card of every school child the name and address of the chosen family doctor; and be it further

Resolved That the designated family doctor, together with the parents or guardians of the child, be informed by the proper school authorities of any accident or illness that may befall the child in the schools of this country; and be it further

Resolved, That it be recommended to the school authorities that the regular physical examinations of school children be made by the family physician whenever the parents desire, on forms provided by the school or health authorities, and that these examinations be accepted by the public authorities in lieu of examinations made by the school physician; and be it further

Resolved, That it be recommended that all records of health examinations accommpany the scholastic record of the child as he passes from grade to grade; and be it further

Resolved, That the provisions of these resolutions be brought to the attention of the secretary of each state medical society and that he in turn inform the secretary of each local medical society.

2. Resolution on Importance of Preventive Medicine presented by Dr. Terry M. Townsend, New York: Your committee has considered this resolution and recommends its adoption.

3. Report of Board of Trustees on Motion Picture on Syphilis: Your committee has read the report of the Board of Trustees concerning the Motion Picture on Syphilis as printed on page 110 of the Handbook and recommends the adoption of the report.

JAMES Q. GRAVES, Chairman.
L. B. BATES.
W. F. DRAPER.
MEREDITH MALLORY.
G. H. MUNDT.

Section 1 of the report of the reference committee was referred back to the reference committee for a subsequent report, on motion of Dr. H. A. Luce, Michigan, seconded by Dr. George M. Fisher, New York, and carried.

On motions, duly seconded and carried, the second and third sections of the report of the reference committee were adopted.

It was moved by Dr. Graves, seconded by Dr. A. T. McCormack, Kentucky, and carried, that the report be adopted as a whole, with the exception of the first section, which had been referred back to the committee.

Report of Reference Committee on Medical Education

Dr. F. S. Crockett, Chairman, presented the following report:

REPORT OF COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

Your Reference Committee on Medical Education, having read the report in the Handbook, and supplementary reports, wishes to commend the Council on Medical Education and Hospitals for its spendid work as evidenced by the marked improvement in the facilities of medical schools and the higher standards obtained for medical education.

Special attention is directed to the report on those schools giving only the first two years of basic medical sciences. While improvement of these schools has shown commendable progress, yet the problem of transferring from a school of basic medical science to a clinical school for completion of a medical education presents increasing difficulties and is a matter of serious concern to prospective medical students.

The annual census of hospitals met with response from 96 per cent of those registered. It is of interest to learn that, while only 939 hospitals are approved for internship and residencies, these approved institutions accommodated more patients than the 5,250 hospitals that are registered but not approved for intern training.

Attention is also called to the 3,612 hospitals existing in this country not approved by the Council or by the College of Surgeons. Your committee urges that some way be found to inspect and grade these institutions in the interest of the public welfare.

It is encouraging to learn that the Board of Trustees has authorized additional assistance to the Council for inspection. Another point of interest shown by the report is the commendable improvement in the percentage of necropsies stimulated largely through the activities of the Council. In 1926 only 249 hospitals were able to report 15 per cent or more of necropsies, while nine years later, 1935, some 692 hospitals had attained this average. Too much stress cannot be placed on the necropsy because of its educational value.

Your committee notes that a revised list of "Approved Colleges of Arts and Sciences and Junior Colleges" has been published this year. It is the opinion of your committee, however, that in at least some colleges premedical students should be afforded better actual medical contacts. Your committee would urge that the premedical adviser in each college offering a premedical course keep in close touch with the Council on Medical Education and Hospitals.

The report properly directs attention to the overcrowded conditions existing in mental hospitals. It is of especial interest to note that there is a definite relationship between overcrowding and the discharge and parole rate, showing a definite advantage in psychiatric treatment in those institutions in which sufficient space and adequate facilities are provided.

To give the Council time for further study of the five year period of training now required for certification by the specialty boards, your committee approves the proposed extension to Jan. 1, 1942, of the date on which this requirement becomes effective.

Your committee approves the Council's proposed study of graduate medical education now in process of formation. The evident advantage of well organized and wisely planned methods of making available to the practicing physician the latest developments of medical science must be obvious to all.

RESOLUTION REQUIRING PHYSICIANS ON STAFFS OF ACCREDITED HOSPITALS TO BE MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

The idea underlying the resolution introduced by Dr. John Z. Brown Sr., Utah, in behalf of the Utah State Medical Association calling for membership in the county medical society of all hospital staff members is being administered now by the Council on Medical Education and Hospitals, pursuant to a resolution introduced and approved by this House of Delegates at the Cleveland session in 1934. It is interesting to learn that hospitals generally have cooperated with the spirit of this resolution.

RESOLUTIONS ON CLARIFYING POLICY OF THE AMERICAN MEDICAL ASSOCIATION ON QUESTION OF GROUP HOSPITALIZATION

Your committee believes that, for the purposes contemplated in the resolutions introduced by Dr. C. W. Stone, Ohio, as resolutions adopted by the house of delegates of the Ohio State Medical Association regarding problems from group hospitalization contracts, it is advisable to define hospital facilities rather than to attempt a comprehensive definition of medical practice.

It is recommended therefore that the contract benefit provided by group hospitalization insurance should be limited to the room, bed, board and nursing facilities ordinarily provided by hospitals, routine drugs, and the routine services of interns only when acting under the direction of the attending physician.

Except as stated above, the contract should not include the services of physicians either general or special. The term physician as used here shall be understood to include all licensed practitioners holding the degree of doctor of medicine and all others who assume on their own account to interpret laboratory findings in terms of disease and diagnosis or to administer or direct treatment.

RESOLUTION REQUESTING THE NORTH CENTRAL ASSOCIATION OF COLLEGES TO AMEND ITS MANUAL

Your committee has considered the resolution offered by Dr. T. R. K. Gruber, Michigan, in behalf of the Michigan State Medical Society, calling attention to certain health service requirements, set forth in the manual of accrediting procedure of the North Central Association of Colleges and Secondary Schools and to which exception is taken.

Your committee is in accord with the idea contained in this resolution and endorses the first paragraph of the summary published on page 95 of the Handbook as it applies to this resolution.

Your committee would urge that the North Central Association of Colleges and Secondary Schools modify its manual of accrediting procedures to permit each member institution to adopt its own health service in conjunction with its own county medical society and to comply with the principles enunciated in paragraph 1 of the summary published on page 95 of the Handbook.

Respectfully submitted.

F. S. CROCKETT, Chairman.
GEORGE BLUMER.
J. T. CHRISTISON.
C. A. DUKES.
W. E. VEST.

On motions, duly seconded and carried, the report of the reference committee was adopted section by section and as a whole, with the exception of that portion of the report referring to the Resolutions on Clarifying the Policy of the American Medical Association on the Question of Group Hospitalization, which was referred back to the reference committee.

Report of Reference Committee on Executive Session

Dr. Thomas A. McGoldrick, Chairman, presented the following report, which was adopted on motion of Dr. McGoldrick, seconded by Dr. Horace Reed, Oklahoma, and carried:

Your committee recommends that the time for hearing Hon. J. Hamilton Lewis, U. S. Senator from Illinois, be fixed for 11 a. m., Thursday, June 10.

Report of Reference Committee on Reports of Officers

With the Vice Speaker, Dr. H. H. Shoulders, Tennessee, presiding, Dr. Wingate M. Johnson, Chairman, presented the following report, which was adopted section by section and as a whole on motions, duly seconded and carried:

Your Reference Committee on Reports of Officers feels that all the addresses were of an unusually high order.

1. Address of the Speaker: The Speaker in his address paid a high tribute to the personnel of the House of Delegates. He also justly placed the responsibility for the policies of the American Medical Association on the members of the House, who are selected to represent the various members of the American Medical Association throughout the United States. He recognized the service of thirty-six veteran members of the House and also established a good precedent by introducing the seventeen new members.

2. Address of the President: The President's address was an excellent discussion of the present status of medicine in this period of social upheaval. He called attention to the fact that medicine was constantly making progress—is not static but dynamic.

Your committee commends his pertinent observation that society may be divided into four main groups, of which the wage earners have the greatest political power and are being exploited by astute politicians. He issues a timely warning against sabotage by "groups on the fringe of the profession."

Your committee recommends a careful study by all physicians of the eleven propositions laid down at the close of the address. It feels, however, that some of these propositions are problems for local communities and that the acceptance of government subsidies involves such basic principles that it should be considered most carefully. Your committee also feels that care should be taken to safeguard a great group of our profession who have contributed so much to its progress, namely, the radiologists and clinical pathologists.

3. Address of President-Elect: In his address the President-Elect called attention to the vast differences in the populations in our various states, in race, in distribution and interests—forming "insurmountable obstacles to providing a standardized practitioner or a single standardized type of medical practice." He recognizes that changes in medical practice are best accomplished through evolution rather than revolution. Your committee wishes to commend the two objectives of organized medicine that he suggests: first, an extension of postgraduate instruction and, second, the education of the public along medical lines.

WINGATE M. JOHNSON, Chairman.
J. N. HUNSBERGER.
R. L. SENSENICH.
J. F. SMITH.
G. W. WELLS.

Reference Committee on Miscellaneous Business

Dr. J. D. Brook, Chairman, presented the following report, which was adopted on motion of Dr. Brook, seconded by Dr. Arthur C. Morgan, Pennsylvania, and carried:

Your committee has given diligent and thoughtful consideration to the Report of the Committee to Study Problems of Motor Vehicle Accidents appointed by the President at the Kansas City session and in the main it agrees and approves of the conclusions.

While we are all cognizant of the various conditions and situations which contribute to traffic accidents, particularly those mentioned in the report, your committee feels that the causes which are attributed to the physical and mental phase of the question are greatly in the minority and that, this being so, the responsibility of the medical profession does not go beyond making recommendations for curbing of driving by mental and physical defectives. Your committee therefore sincerely approves the paragraph advocating a standard drivers' license law and urges the legislative committees of the various state societies to extend their activities to this end.

And although your committee is not opposed to a symposium on the various phases of traffic accidents, it feels that we would be trespassing on a subject which is not broadly within our domain and therefore that, unless such a symposium could be conducted by experts who have daily contact with traffic accidents and who have given study to the subject, it would be of little value.

Your committee is further of the opinion that traffic morbidity and mortality can be greatly reduced by law enforcement. This contention is based on the fact that most accidents are caused by the smart, in-and-out, take-a-chance driver and the ignorant driver. Your committee therefore sincerely believes and recommends that, because of the general apathy toward the obedience of any law, the primary, individual and collective objective to reduce traffic accidents should be the rigid enforcement of the present law.

Respectfully submitted.

J. D. BROOK, Chairman.
H. L. BRYANS.
WALT P. CONAWAY.
C. S. SKAGGS.
C. W. WAGGONER.

Message from American Dental Association

Dr. Charles Gordon Heyd, President, read the following telegram received from Dr. Leroy M. S. Miner, president of the American Dental Association:

From the forty thousand members of the American Dental Association, greetings to you and to the members of the American Medical Association. Please accept best wishes for a meeting of marked distinction and deep significance for the future of medicine and the health of our people.

On motion, duly seconded by Dr. Arthur T. McCormack, Kentucky, and carried, the Secretary was instructed to send a telegram of formal acknowledgment of this greeting.

NEW BUSINESS

Proposed Amendment to By-Laws

Dr. George Gray Ward, Section on Obstetrics, Gynecology and Abdominal Surgery, in accordance with the wishes of that section, proposed the following amendment to the By-Laws, which was referred to the Reference Committee on Amendments to the Constitution and By-Laws:

Amend Chapter XIV, Section 1, subhead 3, of the By-Laws, which now reads "Obstetrics, Gynecology and Abdominal Surgery," to read "Obstetrics and Gynecology."

Resolution Approving Creation of Division of Water Pollution Control

Dr. A. T. McCormack, Kentucky, presented the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

Resolved, That the American Medical Association approve the passage of the bill (H. R. 2711) to create a division of water pollution control in the United States Public Health Service and for other purposes.

Resolutions on Time and Place of Annual Session

Dr. Walter E. Vest, West Virginia, presented the following resolutions, which were referred to the Board of Trustees:

WHEREAS, The annual sessions of the American Medical Association continue to attract an increasing attendance by the medical profession, so that many sessions now register in excess of 7,000 physicians; and

WHEREAS, the number of cities in the United States fully equipped with a suitable auditorium and a sufficient capacity of rooms in their hotels to accommodate those wishing to attend the session is limited; and

WHEREAS, It has become increasingly difficult to select a place for the annual session fully meeting the requirements and offering a date for the meeting most appropriate to the needs of the medical profession; therefore be it

Resolved, That the House of Delegates request the Board of Trustees between now and the next annual session to secure invitations for the annual sessions of the American Medical Association in 1939, 1940 and 1941 and that these invitations be submitted to the House of Delegates at the annual session of the Association in 1938, with the understanding that the House of Delegates will then select places of meeting for these three sessions and that in accordance with the Constitution and By-Laws the Board of Trustees may by unanimous vote change the place of session sixty days prior to any annual session or again submit the question to the House of Delegates should any contingency arise; and be it further

Resolved, That in 1939 the House of Delegates shall select the place of the annual session for 1942 and thereafter shall annually select the place of the annual session three years in advance of the date of meeting.

Resolution on Investigation of Claims of Osteopathy and Other Sectarian Methods of Practice

Dr. McLain Rogers, Oklahoma, submitted the following resolution, which was referred to the Board of Trustees:

WHEREAS, The claims of osteopathy and other sectarian methods of practice have never been investigated and reported on by any qualified agency in the United States; and

WHEREAS, The persistent exploitation of such claims, including the claim of osteopathy to be on a parity with the nonsectarian practice of medicine in every respect, reacts to the detriment of the public; and

WHEREAS, A demand is now being made by the representatives of osteopathy for the recognition of osteopathy by the United States government through the United States Employees Compensation Commission as equivalent in every respect to the nonsectarian practice of medicine so far as relates to the treatment of diseases and injuries among employees of the federal government; be it

Resolved, That the House of Delegates hereby respectfully requests the Board of Trustees to procure through the United States government an investigation by some unbiased qualified agency of the pretensions of osteopathy and of other allegedly healing cults.

Resolution on Average Daily Census in Hospitals

Dr. Henry A. Luce, Michigan, presented the following resolution, which was referred to the Reference Committee on Medical Education:

The House of Delegates of the Michigan State Medical Society at its 1936 meeting introduced and approved the following resolution: "Whereas, the Council on Hospital Examination of the American Hospital Association requires an average of 75 patients per day in hospitals for approval for intern training, and whereas, when such requirements are met with three interns are allowed, and whereas, such requirements work an injustice on hospitals having between fifty and seventy-five patients, because below seventy-five patients no interns are allowed and above seventy-five three are allowed, therefore, be it resolved that the delegates from the Michigan State Medical Society to the American Medical Association introduce a suitable resolution to lower this standard for approval for intern training to fifty patients per day."

The following resolution is therefore presented:

WHEREAS, The House of Delegates of the American Medical Association realizes the advantages accruing from hospitals approved for internship training having an average daily census of seventy-five or more; and

WHEREAS, It is of the opinion that the well equipped small hospital has distinct advantages; therefore be it

Resolved, That the House of Delegates of the American Medical Association direct the Council on Medical Education and Hospitals to approve hospitals meeting the requirements of the American Medical Association, which have a daily census of fifty.

Dr. Luce explained to the House the reasons for the introduction of this resolution.

Resolution on Evils from Promiscuous Use of Barbituric Acid and Derivative Drugs

Dr. Henry A. Luce, Michigan, presented the following resolution, which was referred to the Reference Committee on Miscellaneous Business:

WHEREAS, The public is in danger of untoward evil and toxic effects from the promiscuous use of barbituric acid and derivative drugs; and

WHEREAS, The beneficent value of these drugs when used under proper therapeutic supervision is recognized; and

WHEREAS, The procurement thereof is of easy availability in all but a few states; and

WHEREAS, The evils of these drugs include habit formations, toxic cumulative action, their substitution for alcoholic beverages for drunken episodes, their use for successful as well as unsuccessful suicidal attempts, their improper use being a recognized causative factor in many motor accidents and their improper use being a recognized etiologic factor in some criminal assaults; and

WHEREAS, The laity is unaware of the dangers involved in their promiscuous, unguided use; therefore be it

Resolved, For the protection of the public, that the sale of these drugs be placed under proper governmental control and that the Bureau of Health and Public Instruction be directed to proceed immediately with measures to accomplish this.

Resolution on Campaign Against Syphilis

Dr. Clyde L. Cummer, Section on Dermatology and Syphilology, presented the following resolution, which was referred to the Board of Trustees:

WHEREAS, The record of the United States as regards infection with syphilis appears to be higher than that of many other civilized countries; and

WHEREAS, The United States Public Health Service has initiated a widespread campaign against the prevalence of this condition; and

WHEREAS, The early diagnosis, prevention and adequate treatment of syphilis rest on the physicians of this country; be it

Resolved, That the House of Delegates of the American Medical Association request the Board of Trustees to cooperate with the United States Public Health Service in connection with these efforts and do its utmost to carry to physicians the latest available information on these subjects.

Message of Sympathy

Dr. Holman Taylor, Texas, announced that Dr. S. E. Thompson, Kerrville, Texas, was prevented from attendance at the session because of the serious illness of his wife.

On motion of Dr. Taylor, seconded by Dr. Arthur T. McCormack, Kentucky, and carried, the Secretary was directed to send to Dr. Thompson a telegram of sympathy.

Resolution on Contraception from American Neurological Association

Dr. Olin West, Secretary, read the following resolution from the American Neurological Association, which was referred to the Reference Committee on Executive Session:

The committee on contraception of the American Neurological Association, recognizing the important advance that has been made in the matter of the physician's use of contraceptives by the decision of the United States Circuit Court of Appeals for the Second Circuit, Nov. 30, 1936, desires to present the following resolution:

WHEREAS, Because the aforesaid decision of the United States Circuit Court of Appeals has handed down to the medical profession a bill of rights in the field of contraceptive medicine, and because the decision marks the termination of a struggle begun in 1873 to make clear that the federal obscenity laws do not apply to the legitimate activities of the physician, and that he may now prescribe a contraceptive in the interest of life and health; be it

Resolved, That the American Neurological Association urge the American Medical Association again to consider seriously the inroads that are being made on the prestige of organized medicine by the rapid advance of popular thought in the matter of social medical science as evinced by the success of lay organizations in carrying out their program for greater medical freedom in the matter of contraception. It has come to the pass at which the road for medical advance is blazed by laymen assisted by the law. Unless organized medicine is directed by far seeing and free thinking leaders untrammeled by the aged and antiquated fetters of Sophism, it will most certainly come to pass that organized medicine will in the not distant future come entirely under the control of lay and legal administration assisted by their political allies. The American Medical Association is further urged to take up at once the matter of the proper teaching of contraception at the medical schools and the organization of medically supervised contraceptive clinics in hospitals. The time has passed for discussion and debate. The fact remains that the physician is now free to use contraceptives in his practice and should be educated in their use.

The House recessed for ten minutes.

Report of Committee on Legislative Activities

Dr. E. H. Cary, Chairman, presented the following report, which was referred to the Reference Committee on Legislation and Public Relations:

Mr. Speaker and Members of the House of Delegates:

In February your committee met in Chicago, at which time it reported to the Board of Trustees concerning information gained in conference with various agencies in Washington. The view presented at the time was that pending legislation was of such nature that little attention would be directed to legislation affecting medical practice. It was therefore generally agreed that members of the Committee on Legislative Activities would not engage in extraordinary activity in their individual duties but would be alert regarding any new developments. Later, in April, the situation was canvassed, and it was decided that it would be well for the committee to check again any legislation affecting medical practice before Congress and the various bureaus. The following is a brief summary of the contacts made on that occasion:

Veterans' Legislation: Many bills had been introduced, proposing to authorize erection of additional veterans' hospitals for general medical and surgical cases. These bills were still in committee. Your committee was informed by officials of the Veterans' Administration and others in authority that no program was under consideration for the erection of additional hospitals for the purpose named. The introduction of such bills, however, probably may be accepted as indicating a current tending toward the restoration to veterans of the right to hospitalization for any and all disabilities, whether of service origin or not. As yet no such movement has materialized.

There is, however, pending legislation intended to give veterans whose disabilities are due to their own misconduct, and who have heretofore been excluded, equal rights and privileges accorded other veterans. With enactment of such legislation, the veterans benefited would be added to the class now entitled to hospitalization, and it is hard to estimate the increase in number.

Social Security Legislation: Your committee was informed that the Social Security Board was making no special studies on health insurance. Consideration was being given to the feasibility of providing benefits for persons totally disabled, by disease or injury, before attaining the age at which they are entitled to old age pensions. Also they were studying a plan to provide relief for wage earners temporarily prevented by illness or injury from carrying on their usual occupations but who are not entitled to compensation under workmen's compensation acts or occupational disease acts. At present the relief contemplated to be directly provided by the government in both instances seems to be monetary benefits and not medical and hospital services.

Your committee calls the attention of the House of Delegates to the recent decision of the Supreme Court of the United States, which validated most of the Social Security Act. Quite evidently this opens an avenue for new legislation which could involve the profession of medicine. The question of whether the present or any other administration will take advantage of the Supreme Court's decision and develop new social legislation affecting medicine will depend, it is believed, in large measure on the attitude of medical men throughout the United States and the influence they exert on their respective Congressmen. So far, this administration has not publicly expressed a change from the attitude pronounced by the President in his address at the opening of the Medical Center in New Jersey.

Reorganization of Government Departments: In the February report to the Board of Trustees, your committee mentioned the committee on reorganization of government departments. In May, studies were still under way to determine the most efficient plan for reorganizing the executive branch of the federal government. The question of whether one or more new executive departments would be created was still undetermined. Seemingly it was more or less agreed that a place for the Public Health Service would be sought elsewhere than in the Treasury Department. Where it would be placed, and what other of the governmental medical services would be similarly placed, are matters remaining yet to be determined. Your committee has requested the committee on reorganization to permit it to be heard before any definite decision is reached on this question.

Resettlement Administration Clients: The Resettlement Administration is now an agency of the Department of Agriculture, but the medical problems are in charge of a commissioned officer of the United States Public Health Service. Apparently the Resettlement Administration has no one plan for procuring medical service for its clients. Its general policy seems to be to find in each community the pathway of least resistance. Primarily, the administration is seeking cooperation from state medical associations in asking that they recommend to the component county societies that their respective members adjust medical fees to correspond to the resources of the relief clients. With such cooperation from the state medical association as a basis, it seems that representatives of the Resettlement Administration have been approaching the local medical organizations with a view to procuring the desired adjustment of medical fees. It has been said that the activities of the administration have sometimes gone beyond this and that efforts have been made to induce physicians to fix fees not on the basis of services rendered but at some given amount per annum regardless of the amount of work done. The dangers inherent in this type of contract are evident and it is hoped that objectionable permanence may not be encouraged in meeting an emergency need. Apparently it seems that the plans being formulated by the Resettlement Administration are designed to place the responsibility of medical service for Resettlement Administration clients on the medical profession.

Medical Use of Narcotics: At the Bureau of Narcotics, evidence was submitted that certain physicians played a part in facilitating the development and continuation of narcotic addiction. The apparent apathy of the medical profession in respect to the abuse by physicians of their authority to prescribe and dispense narcotic drugs for professional use was pointed out.

Incidentally, the statement has been made that a similar situation obtains regarding the prescribing of alcoholic beverages. The medical profession does not wish such conditions to exist.

Certainly it can be said that these abuses seem to be limited to very few men in the different states. On other occasions your committee has called your attention to the fact that the licensing authorities in the various states should be more diligent in revoking licenses of practitioners who abuse such privileges. In the instances in which the boards of licensure have no such authority and the wrongdoer has to be tried in a circuit court, seemingly it would be possible to have the law amended. Your committee believes that the great mass of medical men would support such activity on the part of the boards. There is no reason why one or two rotten apples should be permitted, even though we all agree there is no contaminating influence on ethical medical men.

The Secretary of the Treasury introduced a bill proposing to impose certain restrictions on the production, manufacture and use of cannabis and its preparations and derivatives. These are similar to the regulations of the Harrison Narcotic Act on opium and coca leaves and their derivatives and compounds. The duplication of registration, additional taxation and record keeping required by this proposed legislation seems to be without justification. The Harrison Narcotic Act may be easily amended to include cannabis and its preparations and derivatives. There is positively no evidence to indicate the abuse of cannabis as a medicinal agent or to show that its medicinal use is leading to the development of cannabis addiction. Cannabis at the present time is slightly used for medicinal purposes, but it would seem worth while to maintain its status as a medicinal agent for such purposes as it now has. There is a possibility that a restudy of the drug by modern means may show other advantages to be derived from its medicinal use.

Your committee also recognizes that in the border states the extensive use of the marihuana weed by a certain type of people would be hard to control.

Food and Drug Legislation: Since the Seventy-Fifth Congress convened last January, seven bills have been proposed for regulating interstate and foreign commerce in foods, drugs, diagnostic and therapeutic devices and cosmetics. One of these,

commonly referred to as the Copeland bill, was reported by the Committee on Commerce, without a hearing having been given, and promptly passed by the Senate. It is now pending, along with the various bills introduced in the House of Representatives, before the Committee on Interstate and Foreign Commerce of the House. These bills do not seem to provide adequate standards for drugs and for diagnostic and therapeutic devices, or adequate penalties for false or misleading advertising.

The definite weakness of these bills was pointed out. As a committee we have exerted every possible influence to see that a law will be so drawn that it shall be an improvement, rather than a backward step, in such legislation.

Helium for Experimental Use: At the 1936 session in Kansas City, the House of Delegates proposed legislation that would make helium available for medicinal research and use. The federal government has practically a monopoly on this gas. There is only one other source from which it may be obtained. The price charged by the private producer is so high that it almost prohibits further experimentation with the gas or its use medicinally. The proposed legislation contemplates the sale by the government of such surplus helium as may not be needed for military or other governmental purposes. Bills were introduced in the Senate and House of Representatives authorizing the sale of government-produced helium at cost. The Senate bill was favorably reported by the Committee on Military Affairs and is now on the Senate calendar. The House bill was given a hearing, but the committee has not yet made a report.

United States Employees' Compensation Act and Osteopaths: A bill has been introduced in the Senate and in the House proposing to authorize the treatment of injured or sick employees of the federal government under the United States Employees' Compensation Act by osteopaths on the same basis as that on which they may now be treated by doctors of medicine.

The law heretofore has called only for medical treatment. These bills proposed to sanction osteopathic treatment. In both houses the bills are in committee.

Rural Medical Service: The Committee on Legislative Activities last year brought to this House the substance of a conference with representatives of the American Farm Bureau Federation. It now submits the following resolution of the American Farm Bureau directed to the Legislative Committee of the American Medical Association:

Whereas, the health of the people is of paramount importance to the well being of society, individually and collectively; and

Whereas, under the existing order the medical needs of the great middle class of society and particularly of rural people are needlessly going unmet or provided for only in part; and

Whereas, as a result of the condition mentioned above, great unrest and dissatisfaction exists, particularly among rural people; and

Whereas, numerous proposals are being offered, and will be offered, promising to correct the situation described above; and

Whereas, many of these proposals are contradictory, evidencing the need for further research or the dissemination of authentic information and sound advice on the subject; and

Whereas, we welcome the cooperation of any group, and particularly that of the American Medical Association, in our endeavor to develop and to put into practice a sound, practical, fair health program;

Therefore be it resolved, that the medical committee of the American Farm Bureau Federation respectfully requests the Legislative Committee of the American Medical Association:

(A) We earnestly request that the Americal Medical Association make a careful study of plans in operation by organized groups to reduce costs of medical care.

(B) We ask that the members of county medical societies express their willingness to confer with groups of organized farm people in an attempt to work out local problems in a manner mutually acceptable.

(C) That the county medical societies take into account, in fixing scale of charges, the prices received in the community for farm produce.

(D) That the American Medical Association give some earnest thought to the change of the out-dated method of charge for a bedside call. In most instances, these charges were determined when roads were bad and horses used for transportation.

(E) That the American Medical Association take some action on the subject of fee splitting. This practice often renders cost of consultation by specialists prohibitive.

We further ask that the American Medical Association assist the American Farm Bureau Federation in evolving some definite workable plans that will help our farm people to work out this vexing problem.

Respectfully submitted.

By: AMERICAN FARM BUREAU FEDERATION
Committee on Medical Care.
BEN KILGORE, Chairman, Executive Secretary—Kentucky Farm Bureau Federation.
HERBERT P. KING, President, New York State Farm Bureau Federation.
MABEL D. AHART, Chairman, Farm Home Dep't, California Farm Bureau Federation, Western Region Board Member, Associated Women.
FRANK W. WHITE, President, Minnesota Farm Bureau Federation.
MRS. CHARLES W. SEWELL, Administrative Director.

Your committee considers this an important communication as explaining the attitude of one of the most influential farm organizations in the United States. It believes that the members of this House should go on record as recommending to county medical societies their close cooperation with local farm bureau organizations for the purpose of adjusting costs of medical service in a manner satisfactory to physicians and the rural communities which they serve.

Respectfully submitted.

E. H. CARY, Chairman.
J. H. J. UPHAM.
C. B. WRIGHT.
F. S. CROCKETT.
R. L. SENSENICH.

Report of Reference Committee on Reports of Board of Trustees and Secretary

Dr. Floyd S. Winslow, Chairman, presented the following report, which was adopted on motion of Dr. Winslow, seconded by Dr. George W. Kosmak, New York, and carried:

Your reference committee feels that this Association should be deeply grateful to the Committee on Medicolegal Blood Grouping Tests for its thorough and comprehensive review on this important subject.

Your reference committee particularly desires to emphasize the recommendation in the report of the committee that the international nomenclature for blood grouping as recommended by the Health Committee of the League of Nations be adopted as a standard by the medical profession in general.

Your reference committee agrees with the recommendations of the committee as follows:

"That, where necessary, laws should be passed which would authorize courts to order blood grouping tests in cases of disputed paternity and to receive the results thereof in evidence. Such laws could be modeled after those which have been passed in New York State and Wisconsin and the laws now pending before the legislatures in California and New Jersey. It is also recommended that the question of the qualification of medical experts should be reviewed."

Respectfully submitted.

FLOYD S. WINSLOW, Chairman.
ARTHUR C. MORGAN.
C. L. CUMMER.
J. F. SILER.
McLAIN ROGERS.

The Speaker announced that permission to attend the Executive Session on Tuesday afternoon, June 8, would be granted to officers of constituent medical associations and to alternate delegates of the American Medical Association who were not sitting as delegates, as well as to regularly seated delegates.

The House recessed at 12:20 p. m. to reconvene at 2 p. m.

Executive Session—Tuesday Afternoon, June 8

The House of Delegates was called to order by the Speaker Dr. N. B. Van Etten.

The Sergeants-at-Arms polled the House, after which the House went into Executive Session at 2 p. m.

Report of Reference Committee on Hygiene and Public Health

Dr. J. Q. Graves, Chairman, presented the following report, which was adopted on motion of Dr. Graves, seconded by Dr. W. H. Seemann, Louisiana, and carried after discussion:

Your committee has carefully considered the resolutions introduced by Dr. Burt R. Shurly, Section on Laryngology, Otolaryngology and Rhinology, and with the approval and consent of Dr. Shurly desires to submit the following substitute resolutions:

WHEREAS, The family physician has labored for these many years without full recognition of his valuable services; and

WHEREAS, The various school systems of the United States depend on the family doctor for the prevention and diagnosis of disease and the protection of the public; therefore be it

Resolved, That the school boards and authorities in charge of the school systems all over our country be respectively requested to enter and file on the index card of every school child the name and address of the chosen family doctor; and be it further

Resolved, That the designated family doctor, together with the parents or guardians of the child, be informed by the proper school authorities of any accident or illness that may befall the child in the schools of this country; and be it further

Resolved, That it be recommended that all records of health examinations accompany the scholastic record of the child as he passes from grade to grade; and be it further

Resolved, That the provisions of these resolutions be brought to the attention of the secretary of each state medical association and that he, in turn, inform the secretary of each county medical society.

J. Q. GRAVES, Chairman.
L. B. BATES.
W. F. DRAPER.
MEREDITH MALLORY.
G. HENRY MUNDT.

Report of Reference Committee on Amendments to Constitution and By-Laws

Dr. J. N. Baker, Chairman, presented the following report:

Report of Committee to Propose Amendments to By-Laws Providing for Fitting Recognition to Fellows Rendering Distinguished Service in Science and Art of Medicine, which was submitted by the chairman of the committee, Dr. H. H. Shoulders, Tennessee: It was the unanimous opinion of the members of the reference committee that the sentiments expressed in this report and the purposes which it sought to accomplish were entirely commendable. Discussion within the committee, which was quite lengthy, largely revolved around suitable methods of procedure seeking to accomplish the end desired. Two amendments to the By-Laws were submitted with the report. These amendments, after careful consideration both by the members of this committee and by the proponents of the amendments, were altered in certain particulars with the end in view of better accomplishing the purposes set forth in the report. Your reference committee submits for the consideration of this House the following amendments:

Resolved by the House of Delegates of the American Medical Association that the By-Laws of the Association be amended by the addition of a new chapter, Chapter XI, to follow Chapter X, to read as follows:

CHAPTER XI.—COMMITTEE ON DISTINGUISHED SERVICE AWARDS

SECTION 1. There is hereby created a special committee to be known as the "Committee on Distinguished Service Awards of the American Medical Association."

This committee shall consist of five members, who shall serve for a period of three years, except the first committee, two of which shall be appointed for three years, two for two years and one for one year.

Nomination for the award may be made by any Fellow of the Association, provided it is made in a manner prescribed by the committee and not less than two months in advance of the next regular annual session of the Association.

SEC. 2. DUTIES AND POWERS OF THE COMMITTEE ON AWARDS. The Committee on Awards shall make its own rules of procedure, not in conflict with those By-Laws, with respect to the performance of its duties, subject to the approval of the Board of Trustees.

It shall consider the eligibility of nominees for the Distinguished Service Award of the American Medical Association on the basis of meritorious services in the science and art of medicine and shall submit its findings and recommendations to the Board of Trustees annually within a time limit fixed by the Board of Trustees.

In the event that more than five nominations are received, the committee shall elect therefrom a list of not more than five to be submitted to the Board of Trustees, together with a brief statement of its findings with reference to each.

The present Chapters XI, XII, XIII, XIV, XV, XVI, XVII, XVIII and XIX shall become Chapters XII, XIII, XIV, XV, XVI, XVII, XVIII, XIX and XX, respectively.

Resolved, By the House of Delegates of the American Medical Association, that Chapter VI of the By-Laws be amended by the addition of a new section after section 4, as follows:

SEC. 5. TO ESTABLISH A DISTINGUISHED SERVICE AWARD OF THE AMERICAN MEDICAL ASSOCIATION. The Board of Trustees shall create and establish an award to be known as the Distinguished Service Award of the American Medical Association, which shall consist of a medal and a citation.

One Fellow of the Association shall be eligible to receive the award each year and shall be selected in a manner prescribed in these By-Laws.

The Board of Trustees shall consider the merits of nominees for the award recommended by the Committee on Distinguished Service Awards and shall select from the list not more than three Fellows to be balloted on by the House of Delegates. The Board of Trustees shall submit the list of nominees so selected to the House of Delegates for consideration, together with a brief statement of the findings of the Committee on Awards with respect to each nominee.

The House of Delegates shall select the recipient of the award from the list of nominees submitted by the Board of Trustees. The selection shall be by ballot, in the same manner as officers are elected. The vote shall be taken immediately after the nominees are placed before the House by the Board of Trustees.

The Board of Trustees is charged with the duty of having a suitable medal and citation prepared each year and is further charged with the duty of fixing the time and method of presentation.

Your Reference Committee on Amendments to the Constitution and By-Laws of the Association recommends that approval be given to the following amendment, submitted by Dr. George Edward Follansbee, Chairman, Judicial Council:

Amend Chapter IX, Section 1, of the By-Laws by adding to the second paragraph the following sentence: "The period of time within which appeal to the Judicial Council may be taken shall be limited to the six months following the date of decision by the constituted authority of a constituent association."

The following proposed amendments to the Principles of Medical Ethics were submitted by Dr. George Edward Follansbee, Chairman of the Judicial Council: Amend Section 2 of Article VI so that only the first paragraph shall be included in that section under the heading "Conditions of Medical Practice," and that the remaining three paragraphs of that section shall be included under a section 3 with the heading "Contract Practice."

Amend the first paragraph of the new Section 3 to read as follows:

"SEC. 3. By the term 'contract practice' as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization or individual to furnish partial or full medical services to a group or class of individuals on the basis of a fee schedule, or for a salary or a fixed rate per capita."

In accordance with the above proposed amendments, the present Section 3, Article VI, under the heading "Commissions," becomes Section 4, and the present Section 4, under the heading "Direct Profit to Lay Groups" becomes Section 5.

Your reference committee recommends that approval of the House be given to this proposed amendment with the addition

of the words "political subdivision" after the word "organization" in the above section. The section will then read as follows:

"SEC. 3. By the term 'contract practice' as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization, political subdivision or individual, to furnish partial or full medical services to a group or class of individuals on the basis of a fee schedule, or for a salary or a fixed rate per capita."

Your reference committee recommends that approval be given to the proposed amendments to the By-Laws dealing with the President and the President-Elect of the Association, submitted by Dr. George Edward Follansbee, Chairman, Judicial Council, as follows:

Amend the By-Laws, Chapter IV, Section 1, last sentence to read "No member of the House of Delegates nor general officer of the Association shall be eligible for election to the office of President-Elect or Vice President."

Amend the By-Laws, Chapter IV, Section 8, to read: "Installation as President—The President-Elect shall be installed as and assume the duties of President at the opening general meeting of the Scientific Assembly of the annual session following that at which he was elected."

At the 1936 meeting of the House of Delegates held in Kansas City an amendment to the By-Laws was submitted by Dr. George Edward Follansbee, Chairman, Judicial Council, but the official record of the House does not show that this proposed amendment was properly acted on at that time. Your reference committee, therefore, again submits this amendment and recommends that proper official action be taken on it at this time:

Amend Chapter V, Section 1, fourth sentence, to read: "With the approval of the Board of Trustees he is authorized to appoint committees, (*a*) requested by the councils, and (*b*) for emergencies and purposes not otherwise provided for."

Amend Chapter IX, Section 1, the second power invested in the Judicial Council, to read "(2) all controversies arising under this Constitution and By-Laws and under the Principles of Medical Ethics, to which the American Medical Association is a party."

Add to Chapter IX, Section 1, the paragraph "The Judicial Council shall have authority in its discretion from time to time to request the President to appoint investigating juries to which it may refer complaints or evidence of unethical conduct which in its judgment is of greater than local concern. Such investigating juries, if probable cause for action be shown, shall report with formal charges to the President, who, under Chapter V, Section 1, of the By-Laws, shall appoint a Prosecutor, who, in the name and on behalf of the American Medical Association, shall prosecute the charges against the accused before the Judicial Council. The Council shall have the power to acquit, admonish, suspend or expel the accused."

Your reference committee recommends the adoption of the following amendment:

Amend Chapter XIV, Section 1, subhead 3, which now reads "Obstetrics, Gynecology and Abdominal Surgery" to read "Obstetrics and Gynecology."

Respectfully submitted.

J. N. BAKER, Chairman.
C. H. GOODRICH.
G. P. JOHNSTON.
V. E. SIMPSON.
T. F. THORNTON.

Motions were duly made, seconded and carried, that each section of the report and the report as a whole be adopted.

On motions duly made, seconded and carried, the amendments recommended by the reference committee were made to the By-Laws.

Report of Reference Committee on Executive Session

Dr. Thomas A. McGoldrick, New York, presented the following report:

1. Resolutions on the Development of a National Health Program, presented by Dr. Samuel J. Kopetzky, New York: Your reference committee believes that this subject presented here is too important, too vast and too widespread in its application to be justly and adequately considered in a few hours or even a few days by any reference committee. It recommends that the resolution be referred to the Board of Trustees of the American Medical Association for consideration and action at the earliest possible time.

2. Report of Committee to Study Contraceptive Practices and Related Problems: Your reference committee had before it the following report:

Your committee was appointed by the Board of Trustees pursuant to a resolution adopted by the House of Delegates June 11, 1935, as follows:

WHEREAS, Under the stimulus of large nonmedical groups, the general use of contraceptives is being advocated and encouraged despite the existing law, not only by the above mentioned groups but by commercial interests as well; and

WHEREAS, The ultimate effect of these measures on the health and general welfare of the population of the United States is unknown if not questionable and should accurately and extensively be studied by the medical profession, in whose care the health of the people rests; and

WHEREAS, The laws, both federal and local, governing the physicians in their advice to individual patients, where such advice is given as a therapeutic measure, seem to be complicated, not well understood, and generally unsatisfactory, and their interpretation difficult; therefore be it

Resolved, That a special committee be appointed after due consideration by the Board of Trustees to study these related problems and to present at least a preliminary report to the House of Delegates of the American Medical Association at the 1936 annual session; and be it further

Resolved, That the trustees be requested to appropriate the funds necessary in order to carry out the purposes of these resolutions.—*Proceedings, House of Delegates, 1935, p. 45.*

The committee submitted its first report at the Kansas City session of the House of Delegates in 1936. That report, modified as suggested by the Reference Committee on Executive Session, was adopted by the House on May 12. Pursuant to the report as thus adopted, the committee was continued by the Board of Trustees "to continue a study of birth control and to report further to the House of Delegates." This report is submitted in compliance with that mandate.

Since the first report of the committee was submitted, the committee has received communications from various organizations interested in the subject, which will be presented to the House of Delegates.

The present report of your committee is limited to a consideration of the prevention of conception only as it refers to the relation of physician and patient.

Information concerning contraception is admittedly available to persons in favorable economic circumstances. There appears to be no law to prevent physicians who work in dispensaries from furnishing patients there with any information that may lawfully be furnished to patients in any other economic group. In all cases, the legal justification is the medical need of the patient.

All dispensaries, clinics and similar establishments where information and advice concerning the prevention of conception are given to the public should in the opinion of your committee be under legal licensure and supervision and under medical control.

Medical conditions which make conception inadvisable or contraindicate it were listed in the first report of your committee. Nothing has come to the attention of the committee since that report was submitted requiring any significant modification of that list.

In view of the frequent occurrence of medical indications for the prevention of conception, and in view of the medical complications that arise from ill advised contraceptive practices resorted to by women on their own initiative and without medical advice, which call for medical care, medical students should, in the opinion of your committee, be instructed fully concerning fertility and sterility and taught the clinical considerations and therapeutic application of contraceptive methods.

It is recognized that voluntary family limitation is dependent largely on the judgment and wishes of individual parents. The intelligent, voluntary spacing of pregnancies may be desirable for the health and general well being of mothers and children. This raises the question of how many pregnancies are biologically desirable and physically safe, and of the best practical means for determining the proper interval between them. No arbitrary interval can be stated. A variety of factors must be considered, including the patient's general health, the character of the previous pregnancies and labors and of recovery from

their effects, and the incidence of intercurrent illness. Your committee reiterates the opinion, expressed in its first report, that each case must be determined by the individual judgments of parents and physician, based on the conditions present.

In its first report your committee stated that it had been unable to find evidence that existing laws, federal or state, had interfered with any medical advice which a physician felt called on to furnish his patients. This view has been supported by the recent decision of the United States Circuit Court of Appeals, Second Circuit, Dec. 7, 1936, in *U. S.* v. *One Package,* in which it was held that a statute the words of which forbade absolutely the importation of articles for the prevention of conception was not designed to prevent the importation of things which might intelligently be employed by conscientious and competent physicians to save life or to promote the well being of patients. Although the statutes in force in the several states that forbid the dissemination of information concerning methods for the prevention of conception do not in express terms exempt physicians from their operation, it seems fair nevertheless to assume that the state courts, if called on to construe them, will adopt lines of reasoning similar to those followed in the case cited and in other cases decided by United States courts, leaving physicians free to give information concerning contraception when required to meet the medical needs of patients.

In view of the admitted medical necessity for avoiding conception in certain cases and of the general use of contraceptive preparations and devices, your committee finds no reason why the American Medical Association should not investigate such substances and devices. Such investigations for medical purposes seem to constitute a logical part of the activities of the Association in the field of therapeutic research.

RECOMMENDATIONS

Your committee respectfully submits the following recommendations:

1. That the American Medical Association take such action as may be necessary to make clear to physicians their legal rights in relation to the use of contraceptives.

2. That the American Medical Association undertake the investigation of materials, devices and methods recommended or employed for the prevention of conception, with a view to determining physiologic, chemical and biologic properties and effects, and that the results of such investigations be published for the information of the medical profession.

3. That the Council on Medical Education and Hospitals of the American Medical Association be requested to promote thorough instruction in our medical schools with respect to the various factors pertaining to fertility and sterility, due attention being paid to their positive as well as to their negative aspects.

CARL HENRY DAVIS, Chairman.
GEORGE W. KOSMAK.
W. A. COVENTRY.
RICHARD J. O'SHEA.
JOHN ROCK.
WILLARD RICHARDSON COOKE.
E. D. PLASS.
JAMES R. BLOSS, W. C. WOODWARD } ex officio

The committee appointed in 1935 to study the subject of birth control and related problems made its report in 1936 at the annual session of the American Medical Association. The committee was continued at the 1936 session for further study of the related problems. Its present report is on contraceptive practices. With slight modifications your reference committee approves the recommendations now made and recommends that there be added to the first recommendation, "That the American Medical Association take such action as may be necessary to make clear to physicians their legal rights in relation to the use of contraceptives," the words "emphasizing the fact that all considerations in this report on the subject of the prevention of conception have their application only in conditions arising in the relation of physician and patient," and that this recommendation so modified be referred to the Bureau of Legal Medicine and Legislation.

Your reference committee recommends that the second recommendation, "That the American Medical Association undertake the investigation of materials, devices and methods recommended or employed for the prevention of conception with a view to determining their physiologic, chemical and biologic properties and effects, and that the result of such investigation be published for the information of the medical profession," be referred to the Council on Pharmacy and Chemistry and also to the Council on Physical Therapy.

Your reference committee recommends that the third recommendation, "That the Council on Medical Education and Hospitals of the American Medical Association be requested to promote thorough instruction in our medical schools with respect to the various factors pertaining to fertility and sterility, due attention being paid to their positive as well as to their negative aspects," be referred to the Council on Medical Education and Hospitals.

Your reference committee further recommends that information and advice concerning the prevention of conception given in dispensaries, clinics and similar establishments should be given only in such dispensaries, clinics and similar establishments legally licensed to treat the sick and under medical control.

In accordance with the usual procedure of the American Medical Association all letters, communications and resolutions of individuals and societies bearing on the subject of birth control and its related problems which have been sent to the American Medical Association were referred to and were fully considered by the committee on those subjects before and in the making of its report. This includes the resolution offered this day from the American Neurological Association.

Your reference committee recommends that the Committee to Study Contraceptive Practices and Related Problems be not discharged at the present time but that its existence be continued for the purpose of supplying any assistance which it may be called on to render.

Respectfully submitted.

THOMAS A. McGOLDRICK, Chairman.
J. H. CANNON.
E. H. CARY.
E. F. CODY.
JOHN H. FITZGIBBON.

The first section of the report of the reference committee, dealing with resolutions submitted by Dr. Samuel J. Kopetzky, New York, was referred back to the reference committee, on motion of Dr. Arthur J. Bedell, Section on Ophthalmology, seconded by Dr. H. B. Everett, Tennessee, and carried.

It was moved by Dr. Francis F. Borzell, Pennsylvania, seconded by Dr. Burt R. Shurly, Section on Laryngology, Otology and Rhinology, and carried after discussion, that a copy of the resolutions presented by Dr. Kopetzky be placed in the hands of each of the delegates.

The second section of the report of the reference committee, dealing with contraception, was adopted section by section and as a whole, on motions duly made, seconded and carried.

On motion of Dr. Arthur J. Bedell, Section on Ophthalmology, seconded by Dr. A. T. McCormack, Kentucky, and carried, the House rose from Executive Session at 3:40 p. m. and reconvened in regular session.

Report of Reference Committee on Legislation and Public Relations

Dr. T. M. Townsend, chairman, presented the following report:

To the Members of the House of Delegates of the American Medical Association: Your Reference Committee on Legislation and Public Relations has the honor to submit the following report:

With reference to the Resolution on Administration of Anesthesia, introduced by Dr. Walter A. Lane, Massachusetts, your reference committee believes that in principle the administration of anesthetics, the interpretation of roentgenograms, the interpretation of laboratory findings and the application of physical therapy measures constitute the practice of medicine and should be confined to those who are licensed practitioners of medicine. However, your reference committee also believes that in practice it is at present inexpedient to urge the enforcement of the provisions of this resolution.

The Resolution on Establishment of a Department of Public Relations, presented by Dr. L. J. Hirschman in behalf of the Michigan State Medical Society, has the hearty endorsement of your reference committee, which recommends its adoption in letter and in spirit and that the Board of Trustees indicate the technic of its accomplishment.

With reference to the Resolution on Opposition to Copeland Food and Drug Bill, introduced by Dr. Walt P. Conaway in behalf of the Medical Society of New Jersey, your reference committee recommends that the American Medical Association pledge its support to any movement looking toward the promotion of sound and effective legislation, federal and state, for the protection of the public against fraud and deception in the manufacture, distribution and sale of foods, drugs, prophylactic, diagnostic and therapeutic devices, and cosmetics.

The Resolution Approving Creation of Division of Water Pollution Control, introduced by Dr. A. T. McCormack, Kentucky, has the unanimous support of your committee, which recommends its adoption.

The report of the Committee on Legislative Activities has been carefully studied by your reference committee. That report relates the activities of the committee on many legislative matters affecting the public and the profession. It calls attention to the validation of the Social Security Act and how this might open avenues for new social legislation which might affect medicine; to the inadequacies in the food and drug legislation, and to the apparent unfairness of the Resettlement Administration authorities in placing the responsibility of medical service to their clients on our profession at a fixed fee per annum regardless of the amount of work required or responsibility involved. It also considers the inequalities of the distribution of medical care to rural communities and recommends to county medical societies their close cooperation with all rural organizations for the purpose of adjusting the cost of medical service in a manner satisfactory to physicians and to the rural communities which they serve.

That portion of the report of the Board of Trustees concerning the Bureau of Legal Medicine and Legislation has received your reference committee's attention and consideration. The narration of the activities of the Bureau gives evidence of its close touch and intimate contact with all legislation pertaining to the relations between the public and the profession. Doubtless, its close scrutiny, careful analysis and constructive advice have affected this legislation to the benefit of all concerned.

That portion of the report of the Board of Trustees devoted to the Bureau of Medical Economics goes into careful detailed consideration of the question of group hospitalization. Your reference committee commends the principles stated in that section of the report pertaining to group hospitalization and recommends the adoption of those principles as the policy of the American Medical Association, and it is urged that medical societies in those communities in which group hospital insurance is thought to be necessary be guided by these principles to the end that such schemes confine their contract benefits strictly to the facilities ordinarily provided by hospitals; viz., hospital room, bed, board, nursing, routine drugs. It is suggested that the Bureau of Medical Economics continue to collect factual and statistical data concerning group hospital insurance experience and make these facts available from time to time.

Although that section of the report of the Bureau of Medical Economics on rural medical service has already been considered in the report of the Committee on Legislative Activities, your reference committee urges serious consideration of that section of the report. It appears that because of a wide diversity of factors no uniform plan of distribution of medical services in rural communities can be adopted. It is recommended, however, that county medical societies, wherever the necessity exists, cooperate with local organizations in providing, supplementing, reorganizing or modifying good medical services to the rural population.

That portion of the report of the Board of Trustees devoted to the Bureau of Health and Public Instruction is a simple narrative of the work of that bureau during the past year. Your reference committee commends its industry and expresses the gratitude of the Association for its faithful work.

That section of the report of the Board of Trustees on Occupational Diseases and Industrial Medicine has received the careful consideration of your reference committee. Since industrial health has become increasingly important, your reference committee believes that this Association should continue to act in such a way as will enable it to be of the greatest assistance in the prevention and control of industrial accidents and disease. Your reference committee recommends that to this end the American Medical Association establish a Council on Industrial Health which shall concern itself with matters pertaining to the control and prevention of occupational disease.

Respectfully submitted.

T. M. TOWNSEND, Chairman.
J. C. FLIPPIN.
H. T. LOW.
S. H. OSBORN.
J. G. TAYLOR.

On motions duly made, seconded and carried, the report of the reference committee was adopted section by section and as a whole, the Speaker ruling that the section recommending the establishment of a department of public relations, which involves the expenditure of money, will have to be referred to the Board of Trustees without further debate.

Report of Council on Scientific Assembly

Dr. Irvin Abell, Chairman, presented the following report, which was adopted on motion of Dr. Abell, seconded by Dr. George Gray Ward, Section on Obstetrics, Gynecology and Abdominal Surgery, and carried:

The Council on Scientific Assembly has considered the resolution introduced by the delegate from the Section on Obstetrics, Gynecology and Abdominal Surgery, relative to change in title of that section and, in view of the grounds mentioned therein and further that such change in title is requested by the section involved, recommends its adoption.

The Council further recommends that Chapter XIV, Section 1, subhead 3 of the By-Laws be amended to read "Obstetrics and Gynecology."

IRVIN ABELL, Chairman.
FRANK H. LAHEY.
JAMES E. PAULLIN.
A. A. WALKER.
J. C. FLIPPIN.

Report of Board of Trustees

Dr. Rock Sleyster, Chairman, presented the following report:

The Board of Trustees has considered the several resolutions referred to it by the House of Delegates this morning and recommends the approval of the following:

Resolutions on Time and Place of Annual Session introduced by Dr. Walter E. Vest, West Virginia.

Resolution on Campaign Against Syphilis introduced by Dr. Clyde L. Cummer, Section on Dermatology and Syphilology.

Relative to the resolution introduced by Dr. McLain Rogers, Oklahoma, the Board of Trustees has had this matter under consideration and will continue to keep it under surveillance to see what can be done regarding it.

On motions, duly seconded and carried, the report of the Board of Trustees was adopted section by section and as a whole.

Request for Special Session of House

Dr. E. F. Cody, Massachusetts, as a member of the Reference Committee on Executive Session, moved that a special session of the House of Delegates be held Wednesday, June 9, at 2 p. m. The motion was seconded by Dr. James Q. Graves, Louisiana, and carried after discussion.

Executive Session

State Medical Defense Plans

Dr. Charles S. Skaggs, Illinois, requested the courtesy of the House to hear Dr. J. R. Ballinger, Chicago, with respect to the situation arising out of the ruling of a committee of the American Bar Association that a state association was practicing unauthorized law in the operation of its medical defense plans.

It was moved by Dr. Arthur T. McCormack, Kentucky, seconded by Dr. H. B. Everett, Tennessee, and carried, that the privileges of the floor be extended to Dr. Ballinger.

On motion of Dr. B. F. Bailey, Nebraska, seconded by Dr. Horace Reed, Oklahoma, and carried, the House went into executive session at 4:20 p. m. with Dr. N. B. Van Etten, Speaker, presiding.

Dr. J. R. Ballinger, Chicago, and Dr. W. C. Woodward, Director, Bureau of Legal Medicine and Legislation, addressed the House on the ruling of the Committee on Unauthorized Practice of Law and the Committee on Professional Ethics and Grievances of the American Bar Association.

The House recessed at 4:50 p. m.

Third Meeting—Special Executive Session, Wednesday Afternoon, June 9

The House convened in special executive session with the Speaker, Dr. N. B. Van Etten, presiding.

Report of Reference Committee on Amendments to Constitution and By-Laws

Dr. J. N. Baker, Chairman, presented the following report:

The resolution to amend the Constitution dealing with the election of the President and President-Elect of the Association, introduced by Dr. George Edward Follansbee, Chairman, Judicial Council, has received consideration at the hands of your committee.

The purport of the amendment to the present Constitution is to make better provision for succession in office in case of death or of disability of the President-Elect. In giving consideration to this important matter, your reference committee feels that this body might take under advisement the possibility of providing by constitutional amendment a Vice President-Elect to be included in the general officers of the Association. Such provision is not made in the present Constitution, nor does the proposed amendment make such provision. Such provision would necessitate the amendment of Section 1 of Article VI of the Constitution by including a Vice President-Elect as one of the general officers of the Association, as well as making certain alterations in the phraseology of the proposed amendment.

Since this is an amendment to the Constitution, it will have to lie over for a period of one year before final action can be taken by this House.

Respectfully submitted.

J. N. BAKER, Chairman.
C. H. GOODRICH.
G. P. JOHNSTON.
V. E. SIMPSON.
T. F. THORNTON.

It was moved by Dr. Baker, seconded by Dr. J. Newton Hunsberger, Pennsylvania, and carried, that the report of the reference committee be adopted.

The Speaker announced that the proposed amendment would lie over for one year.

The Sergeants-at-Arms reported that the House had been polled.

Cooperative Medical Service Organizations

The Speaker announced that the subject of cooperative medical service organizations might well come before the House in executive session and asked Dr. E. H. Cary, Texas, to present the matter to the House.

Dr. W. C. Woodward, Director, Bureau of Legal Medicine and Legislation, at the request of Dr. Cary, made a statement to the House concerning cooperative medical service organizations.

Report of Reference Committee on Executive Session

Dr. Thomas A. McGoldrick, Chairman, presented the following report:

Your reference committee has carefully considered the Resolutions on the Development of a National Health Program, introduced by Dr. Samuel J. Kopetzky in behalf of the New York delegation, and has held hearings at which the details of the principles and proposals were freely discussed.

The Board of Trustees has already reported to this House of Delegates its considered opinion pertaining to the reorganization, in one consolidated department, of the activities of the federal government having to do with the promotion of health and the prevention of disease. Copies of this statement, as printed in THE JOURNAL and in the Handbook of the House of Delegates, were transmitted to the President of the United States and to others in official position in Washington, and the attention of constituent state medical associations was especially called to the action of the Board, as follows:

"Recognizing that committees of the Senate and of the House of Representatives of the United States government and a special committee appointed by the President are at this time concerning themselves with the reorganization of government activities with a view to greater efficiency and economy, and recognizing also that the President, in his opening address to Congress, indicated that he would shortly present to the Congress recommendations for such reorganization of government activities in the executive branches, and recognizing moreover the great desirability that all activities of the federal government having to do with the promotion of health and the prevention of disease might with advantage be consolidated in one department and under one head, the Board of Trustees of the American Medical Association would recommend that such health activities as now exist be so consolidated in a single department which would not, however, be subservient to any charitable, conservatory or other governmental interest. It has been repeatedly said that public health work is the first problem of the state. It is the opinion of the Board of Trustees that health activities of the government, except those concerned with the military establishments, should not be subservient to any other departmental interests. This reorganization and consolidation of medical departments need not, under present circumstances, involve any expansion or extension of governmental health activities but should serve actually to consolidate and thus eliminate such duplications as exist. It is also the view of the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration."

Since the House of Delegates during this session has already approved this action of the Board of Trustees, your reference committee deems it unnecessary to submit for your consideration that portion of the resolutions which deals with this subject.

Your reference committee recognizes that certain principles stated in the resolutions presented by Dr. Kopetzky have been considered by the House of Delegates on previous occasions and are matters of record. These include, for example, the recognition of the primary importance of public health, the opposition to compulsory sickness insurance and the separation of the problem on economic need and the distribution of medical service.

The Board of Trustees has given careful consideration to the extension of medical service to the indigent, as indicated in the following statement, which was contained in the report of the Board of Trustees as printed in the Handbook and which was approved by this House during its session June 8, 1937:

"In the past, the medical profession has always been willing to give of its utmost for the care of those unable to pay. The available evidence indicates that today throughout the United States the indigent are being given a high quality of medical care and medical service. Nevertheless, the advances of medical science have created situations in which a group of the population neither wholly indigent nor competent financially find themselves under some circumstances unable to meet the costs of unusual medical procedures. The Board of Trustees of the American Medical Association points out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all those unable to pay either in whole or in part. Members of the medical profession, locally and in the various states, are ready and willing to consider with other agencies ways and means of meeting the problems of providing medical service and diagnostic laboratory facilities for all requiring such service and not able to meet the full cost thereof. These are problems for local and state consideration primarily rather than problems of federal responsibility. The willingness of the medical profession to adjust its services so as to provide adequate medical care for all the people does not constitute in any sense of the word an endorse-

ment of health insurance, either voluntary or compulsory, as a means of meeting the situation."

The American Medical Association is cognizant of the medical needs of the people of the United States and is genuinely interested in all plans for providing and distributing medical care. The records, reports, source material and experience of the Association are of great value. They are at the service of agencies contemplating the development and operation of plans for medical care. These factual data, source material and experience are readily available for use in promoting and protecting the health of the American people.

Your reference committee recommends that the bureaus, councils and committees of the Association continue their studies of the need for and the methods of distributing medical care, to the end that the American Medical Association shall continue to do everything possible to promote and to protect the health of the American people.

The American Medical Association reaffirms its willingness on receipt of direct request to cooperate with any governmental or other qualified agency and to make available the information, observations and results of investigation together with any facilities of the Association.

With respect to proposals for a National Department of Health, your reference committee refers to the report of the Board of Trustees in the Handbook, page 107, which has just been read.

Your reference committee believes this fully covers the subject.

Respectfully submitted.

T. A. McGOLDRICK, Chairman.
E. F. CODY.
E. H. CARY.
J. H. FITZGIBBON.
J. H. CANNON.

On motions, duly seconded and carried, the report of the reference committee was adopted section by section and as a whole.

The House recessed at 2:55 p. m., to meet in Special Executive Session on Thursday, June 10, at 11 a. m.

Special Executive Session—Thursday Morning, June 10

The House of Delegates convened in Special Executive Session at 11:15 a. m. and was called to order by the Speaker, Dr. N. B. Van Etten.

Address of Past President William Allen Pusey

The Speaker announced that Hon. J. Hamilton Lewis, U. S. Senator from Illinois, was on his way to the meeting to address the House. In the meantime he called on Past President William Allen Pusey, Chicago, who addressed the House as follows:

It is quite an unexpected situation for me to be asked to fill in for Senator Lewis and to make a speech without warning. As far as I can judge from my experience, it would not be fair to most people for anybody to be asked to present a speech before he prepared it. I haven't anything to say. I am delighted to be here. I appreciate, of course, the high honor of being asked to come up here today. I am interested in the proceedings of the House of Delegates. As far as I can learn from sitting on the sidelines and talking to a few wise men, the House is wise as usual. I hope you are having a very comfortable and agreeable meeting, with altruism prevailing. No man could ask for more. All I can do is to hope that your wisdom will long continue.

Address of Hon. J. Hamilton Lewis

Dr. Holman Taylor, Texas, escorted Hon. J. Hamilton Lewis, U. S. Senator from Illinois, to the platform, and the Speaker presented Senator Lewis, who addressed the House, as follows:

I recall with great gratification when you did me the compliment, on the suggestion of our distinguished fellow citizen Dr. Fishbein and your organization, to let me have some words with you in a previous meeting. Then I boldly took the liberty to chide my brother profession on the fact that they remained always doctors and declined in the political world to be citizens. I recall that I dared to point out the changing affairs coming in the world, and how I saw that the influence of the doctor in the family and on the citizens where he lived was going to be so necessary that, if he exerted it, much would be done to avoid what I saw was a coming complication and serious confusion. If he deferred on the delicacy which many of them have —indeed all of them—that being doctors they must keep hands off of political subjects, there would be much to regret. There would be so few laying on hands in an unselfish attitude to win respect for the physicians.

Today you have been kind enough to let me visit for some reasons that all of you have not had time to understand. That is why I so audaciously asked the privilege to speak again to you.

I thank you, dear Mr. Chairman, for your reference to me, particularly your kindly and generous flattery as to the kind of Senator you were good enough to speak of. But I want to confide to you something very confidentially among professional brethren—I wouldn't attach too much importance to that designation called "Senator." . . .

[Here Senator Lewis interspersed an anecdote about the Senate.]

Doctors, I have a few words that you will allow me, I am sure, to express. I wanted to have some words with you, not to advise you, but to ask your advice, that you may understand my position. Busy as you are in your own matters, I reveal to you that which has been greatly disturbing me.

I helped write, helped prepare, and naturally as a whip and the parliamentarian of the Senate helped pass, the law you refer to as the Social Security Law. I address myself to that feature which concerns the doctors. I have not been able to agree with the gentlemen of the committee and find myself very much at variance with nearly every one who seems to touch this subject.

In the first place, I want you to know that I have felt that our country is so far away from the necessity of directing matters of the application of medicine as coming from you gentlemen that when we did approach it we approached it as a political subject. We approached it on the basis of what might be called charity and relief. I fear we quite overlooked that there was a scientific situation that had to be considered in order that justice be done all those who would be affected by the result.

You gentlemen of the profession hesitated to touch this subject. Many who felt kindly, and who in your local organization have ever done so much to aid the miserable and relieve the depressed, still shrunk to the point almost of resentment against government assuming to sit in direction as to your method of the application of your science. There was within you that in which I assure you the law and the lawyer quite fully conjoin with you: a resentment against that thing called government assuming to dominate you, control and direct you in the matters where your discretion, guided by your sense of right and your learning, directed through your years of experience, should be the sole and whole influence.

You hesitated to accept the suggestion and you naturally felt that there was an attempt on the part of the government to take from you initiative and independence of two relations, one as doctor, the other in your contractual relation of doctor and patient. I beg to say to you that you have reached a point where the change in all government must attract your attention. If you feel, dear gentlemen, that setting about in the pursuit of your undertaking and preparing the course of this great profession which you undertake to guide there has entered something of innovation and invasion, I beseech you to pause and realize that there is nothing that is not now undergoing some form of encroachment by those who fancy they know a system better than that prevailing, or by those who, because of power politically, dominate with the control an office may give.

May I speak of myself? Where I am we have a band of men among whom is your servant. We are having serious war against what is known as a set of rules called Supreme Court of the United States Rules. They are a body of law in which the whole profession of the law and its method of

practice is being revised. A new system is being put upon the lawyer, beneficial let us feel in many respects, to redeem the law from being looked on as an instrument of either mystery or persecution, but which we as a profession hesitate to accept. We have been fighting and continuously opposing it, and from the very spiritual reason that you gentlemen in your profession have not been inclined, taking you generally, to adopt this invasion upon yourselves.

But, doctors, the question for you is not whether you like it or whether you don't; whether within yourselves you feel you are better for it individually or not. The question for you is What is to be done about it? I want you to recognize one of those who recall that all your past has been that of the doctor and its patient. The patient steps up now and says "I have a voice unto myself. I am the subject of this treatment, and I am either to be the beneficiary or the victim of your procedure." Yes, and then he is having those around him that teach "Well, what right has this man anyhow?"

"He is a man. He has a right as a man."

"Correct."

"And he has a right to learn these systems which he speaks of as medicine."

"Also correct."

"But what right has he to organize a society and say to his fellow 'You can't come into this society unless you conform to certain regulations we have made for you and then pass examination and in this be so complete that we will give you our certificate' and yet in the meantime turn to the state and say 'But you can't make a certificate for us or create a society or organization that prescribes limitations.'"

Then comes the other to rise up and say "Yes, but you doctors have been a busy lot dividing yourself between those who sincerely in your profession seek to alleviate distress and others who look upon your profession as an avenue and an agency of enriching yourself, and between these two haven't you overlooked the fact as to who you are? You forget that everybody around you has been regulated by the new order of government. That man James Hamilton Lewis and his colleagues, who are they? They have from time to time been compelled to submit first to their bar association, then to some regulation, then to the right of the judge to expel them from practice, and now under the new theory their higher court, called the Supreme Court, to give the privilege even to let them practice, and if to practice to reserve the right to reform them, supervise them and dismiss them. In addition to this there has been created for those lawyers the right of the judge to name any one of them to defend and represent any human being, and as their oath to their duty is similar to that which is your distinguished Grecian oath to your profession, he has no right to complain. And if he attempts to do so he will be dismissed from the privileges of collecting his money by the law."

They turn to you doctors and say "Do you recognize, Mr. Doctor, something else of yourself? What rights have you, sir? You have learned this that gratifies you and in your heart you would serve your fellow man. That is gratifying to all those who know you. But what right have you to charge money for it? Where do you get the privilege of exacting the right to make your fellow man pay you? You get it because you give a consideration of service and you have a right to have the exaction of a fair compensation. But you go further. The state authorized you as an officer of the state to proceed into the tribunals of the state called the courts to enforce payment." Do you know, you can't collect your money, you can't testify? You have served a man a year or two, and nature in the course of things takes him away. He has a large estate or small; we will speak of the large one. You know what is due you. Do you think you can get it? Under an ancient system of the law handed down long ago to prevent the living from putting words in the mouth of the dead and thus working a fraud, there is a provision of the law which we adopted that prohibits a man who brings suit against that which is dead from taking the witness stand; he cannot testify. What is the result on the doctor? The result is you can't get on the stand and testify how long you have served that man, the nature of his malady, and bring in your brethren to show that your services called for scientific application, and you are not allowed to speak of what would be the value of your service. You must take your chances to try to get your money out of the administrator, the executor of the will, by whatever system can be devised by those of your brethren who know nothing about that which you could have testified had you been allowed to tell the truth about it.

I mention this only to show how little you have been regarded within the processes of the law as to your real rights in the collection of that which is due you.

In the meantime, how do you think you stand now? You are giving attention for a moment to some advice from one of your fellow citizens on a matter which he dares to assume you have not thought about and to which he presses you now for serious deliberation. Are you aware that in the last forty-five years there has been a gradual accumulation in matters of national health, immigration, etc., of a form of federal procedure touching your conduct on certain classes of people—sometimes we speak of them as foreigners and sometimes immigrants—under the narcotic administration? Are you aware that you have been admitted to the practice in the state in which you live, that under that practice you are conforming to some regulations? But I propound to you: What right have you to take up any of these matters federal? Where do you get your rights? I am a lawyer. I must be admitted to my state bar; I must be admitted to the county bar, but I must be admitted to the United States federal courts before I can rise in a federal court to seek in behalf of my client his rights under the federal law. Do you know what is going to happen to you? That is why I want a word with you seriously. You are going to have a certain set of individuals, thoughtless from my point of view, meaning nothing unkindly to them, who are shortly going to demand of you that there be a system of examination and application by the federal government on every doctor of America and to prove his right to be admitted to practice under the federal law in addition to that which he is now enjoying under his local acts. Then we will come about to the thing which I am utterly against and wholly abhor but which I tell you is on its way: the designation of a certain class of doctors named by the President or by some officers of the federal government, who then become a board who are to pass on their fellow doctors having the right to be admitted to be a practitioner under the federal law.

Naturally, something in you says "Lewis, you don't really mean that there is an attitude of mind of that kind in the land?" And I am compelled to say to you, my dear comrade, not only do I mean there is such a prospect, I mean to come here today and tell you it is on you and you have got to pause to consider it, and that is why I have come to ask your advice.

I helped to draw the provision that relates to the doctor. I have been one of those, as our dear friends from Chicago will tell you, who advocate that you doctors take into your hands the system by which the poor could be cared for, hospitalization provided for, a system of guardianship so secure that the individual can be counted on at all times to be taken care of, however poor, however unfortunate. You say "As patient?" Your friend Lewis says "No." I dismiss the thought of patient, much as I know you have to carry it. I am compelled to tell you that government is on its way to saying to you "Hold up here, Mr. Doctor, we are not asking you to do anything about a patient. Where do you get this that we hear about that we are daring to interfere with your personal relations between you and your patients? We know nothing of patient, don't recognize its existence. It is your creation. We recognize an instrument called citizen who is essential to the welfare of government. He takes the form of man or woman. You have professed to be able to help him carry on his life. We need his life for usefulness in civil affairs, for the conduct of affairs of life in its civil nature, in military for the defense of his nation. And now since you assume to take care of the mother of that child that is to come forward and the mother herself that is to give birth to and help guide it, and the father who must help maintain and sustain it, we are compelled to tell you that we have got to treat you as an officer of the federal government and turn you into being such and ask you to consider the subject of yourself as an official of the federal government taking care of the citizen."

Then, since that is the position in which you are going soon to be put and which every hour you reach nearer and nearer, pardon me if as a brother professional man it is nothing less

than absurd for men to come around you and say "This is an invasion, it ought to be resisted, it ought to be resisted, it ought not to be adopted."

Your answer is "It may be you are right, but it is the policy that seems to possess mankind in his advances all over the world, and since it is to us to be acted upon, Lewis has come down to make this suggestion."

Gentlemen, I desire to reverse the situation. An amendment is now pending. I have had it hung up as like on a hook so I could come down and chat with you. I want the position wholly changed. Instead of the government taking charge of directing the doctor as to what is to be done in the matters where his science is of first application, I want the government to place the doctor in the position where he can direct the government.

Two things are ahead of you, brethren. You come down where I am and listen to the quiet and silent chat and then the whispered voice that beseeches you please not to communicate them as the source of your information; contemplate the movement already afoot by certain well meaning gentlemen who fear some other gentleman and who suggest to your representatives in public life the necessity of picking out certain favorites and constituting them as a body that shall have the full control of your great profession in order to tell each where they shall act, how they shall act, in what manner they shall act, and in every manner they shall serve. Come down close and find out how severe it is we have to contest against that and find oftentimes we are charged with ill manner because we don't wish to have those things whispered to us quietly to be put into the law without some voice to the general profession.

That brings me to say to you it is my judgment that the time is come when you have got to say to yourself "We were willing, and have been as members of organization, to do charity everywhere. We have been doing it for constant years. We pay out of our pocket for the medicine. We tender such services as we can. We give our hours at the expense of other patients to whom we owe an obligation. We join wherever we can in the local government or the state government in every form possible. We obtain no compensation. We have no manner of receiving it. We lose that which we could have made from other sources. And you, Mr. Government, while you have been busy considering what you feel should be the welfare of the needy, you have given no thought as to the rights of the individual you enforce to serve the needy."

Where, then, does that doctor stand?

Physicians, I have a proposition which I take the liberty to give to you, for it is on that that I ask that at some subsequent time you will be so good as to consider that I might through the offices have the benefit of your suggestion. It is that which I feel our committee, knowing that I am to come before you, is expecting to hear from. *I am pleased to tell you that as I left I called the President and told him I was on my way to have a conversation with you gentlemen. I would like to deliver from the President of the United States a message coming direct with his authority. He said that I was authorized to say to you he knew something of your meeting, he had been for some time observing the courses of the doctor, that he was not far removed from constantly keeping up with the features of the profession, and he wished you success as to your undertaking. If I use his exact words, he hoped that you would find a way to cooperate with him in such method as you would jointly find would be to the service of the helpless and the afflicted within such province as you felt government should undertake.* I deliver the message of the President and assure you it was a source of great pleasure that he understood I was to be here.

And here I take the liberty now to define to you what I propose should be the course as to yourselves. That I see that you are advancing to be treated as a federal official there can be no doubt; that you are on the way so soon as you qualify as a doctor in your state and your local situation, to be soon made a member enlisted in those of the profession of the federal government, and as such to be put something in the position of a captain and officer of the army and the navy. You are to be put in the position as one who is to be recognized by the government and subject to the service of the government in protecting your fellow citizen, but in the meantime I trust recognized as having your own rights which at the time may be properly preserved and guarded.

May I offer you the suggestion I have pending. I feel it is most fair to say to a doctor "Doctor, please step out from your business or family." You have children, too, and they ought to be educated; you have homes to be cared for; you have a profession to maintain; you have a prestige to uphold. I don't feel it is right, sir, despite all these attitudes of mind you get from those who have not had time to think upon it to say "Please step aside from all of this, sir, and give your time wholly and largely to the instrumentality necessary to aid those in distress and see they are lifted from it, cared for, hospitalized, medicine provided, in care and watchfulness day after day, and while it is at the expense of yourself financially and in all respect perfected, you owe it."

"To whom?"

"You owe it to what is called society."

"Am I not one of them?"

"One of what?"

"One of the thing you call society."

"Yes."

"Well, is nothing owing to me? Who paid for this education I have? Who paid for the years in which I have gone to obtain it? Who is likely to take care of those whom I am supposed to be maintaining? In the meantime, what effort is being made at least to recognize me as being one of this society in having something of the similar rights of those to whom you now send me to give my whole time and devotion?"

Therefore, dear gentlemen, I will with your consent when you have later given it consideration, if you feel it is agreeable, press on this branch that happens to be mine which I serve (you know what is called chairman of a subcommittee) that I want the present Social Security Law amended. There are amendments pending. You gentlemen too well know that the law is not new and there will be many changes. There are many eminent doctors who feel the Swedish method should be taken up by us and practically adopted, some others the German, that which prevails in Denmark, and interesting to add there is a system of which I knew absolutely nothing which seems to come from China. But the suggestion is that nevertheless you be placed in the position of complete obedience to whatever the law may enforce. I say I want that poor, that afflicted, that suddenly injured, having no funds, unable to make his private, individual contract, to have the right to summon any doctor all around him, however high, however elevated, without regard to what his elevation is, the quickest, the nearest to him for service; that doctor at once turns to the obedience of the demand, to the obedience of the need, and this patient is taken charge of at once as if he had been employed by a paying patient. He promptly sees the need of this patient for hospital, and to the extent that the patient needs the hospital this doctor has a right by virtue of the fact that he is now a federal auxiliary to step into any hospital of any kind at once and have this person attended according to the need as the doctor sees it.

And then what shall follow? It is that on which I am having my discussion. I insist that that doctor, chosen as he is at any time by any one in this need, shall have promptly the right to write down his bill, his exact charge, what he feels with his sense of honor is a fair charge for the service he is doing the patient, for the service he is giving at the hospital, for the medicine he may have to more or less if not credit for be responsible for, and he frames this charge in an intelligible, simple manner, in an ordinary bill. He takes this bill by himself or by mail or by his messenger at once to the agency where this doctor serves who represents the social service and has this bill promptly filed. He may have to repeat this a dozen times a week, he may have to do it a hundred times a month, but wherever he does this work he sends his bill for this work (I come back to you now) not to the patient but to the government whose citizen you are protecting, whose agency and power and force are needed for the carrying on of the thing they call the society you are preserving. With this bill so sent in, you promptly are paid on the theory that, of course, you would not defraud your government, but with a provision in the law that any doctor who could descend to take advantage in the way of price or misrepresentation be treated like any other fraud, and any patient who represented being unable to pay and took advantage of the doctor, taking

his services as well as from the government, be likewise treated as a direct instrument of the fraud and offense against the government; and that by this system we openly announce and we publicly proclaim that doctor as having the right to practice as an immediate representative of the federal government in whatever he attempts to do in behalf of that particular being and instrument called the citizen; that his compensations be so arranged and that he arrange them in such manner consistent with his own sense of honor and proportionate with what he knows has been the service he has been giving.

And now, dear friends, I conclude. As you know from my remarks, I am a lawyer—not always successful. I have had the usual difficulties, the ups and downs that usually follow, but I have not been without experiences in connection with your distinguished profession in many different degrees. I do not think it wise that you doctors should have this system of your compensations put under the control of gentlemen who are to be appointed to be in control of the board and to be given the domination of these privileges as an opportunity for political office. I have seen lately, and I mean nothing unkind—I am speaking to my brethren of the profession in the sense of our respect for each other, and have watched attendance to the poor creatures victims of the World War and have seen something of the service administered to them and the methods of its administration through those who are appointed as political office appointees, and those appointees, meaning ever so well, let it be understood, in all government without regard of politics of any nature. I have watched it day by day grow to where they have so imposed on the government and unhappily the victims of the disease and disorder until the whole thing has been converted into a political machine that has worked a persecution on the afflicted and a robbery on the citizen. I can't see how that can any longer continue among an intelligent body and a patriotic order of citizen. I therefore, my brethren, can't accept—until I get better advices I decline to accept—that this board that is to be constituted is to be made up of political appointees called Democrats or Republicans or whatever designation you please, whose mere political appointees shall have the right to name those who shall sit as to your amount of fees, have a right to revise your bill, consider your services, passing judgment and review on them. I cannot accept it.

I want consideration from you when you have time to reflect on it. What method would you suggest to us in one of complete fairness to you, to your profession, of a system of appointees who shall be those who shall sit in judgment on your fees, the methods of your payment, and, if you please, sometimes the quantity and quality of it? And who is it that shall sit to decide as to each of these geographic localities what particular boards shall in that locality make the board to which you must send your bill and from whom you must take your direction or counsel?

What method do you advise by which you shall not be put out of your character as doctors and subjected to merely a set of servants under the orders of those who call themselves political appointees? I can't take the latter. I am in revolt, and I burden you by coming over here and asking that I may be heard, because on this particular feature I am so much at variance with many around me that I fear I must confide to you that there is a great deal of distraction, almost sometimes amounting to violence in dispute.

I want you to take this subject in hand. There is the law. It is very deficient. Many of the principal features of the right to enter into the subject at all over the state and the government, I might say, of your offices, your duties, was very much debated. That is past the time. The question for you and which I am seeking is how to deal with the doctor, what to do with his profession, what to do with his science that he has equipped himself to discharge, and it is that that I have come to seek from you that you take charge of the subject and give advice to your government, that you please offer counsel to us, as to what in justice to your whole profession first would be the best system to put into effect some organization that shall have the voice with the doctors dealing with the doctors. Second, what shall be the qualification apart from medicine, of character or of experience, if you have it, of those who will serve on the board in order to be those who directly serve to the local board? In other words, dear gentlemen, your principal board in Washington I am worried about. I don't want it made up of gentlemen appointed merely because they may have been effective in stuffing some ballot box. Nor do I want that other set who are to be rewarded for vigorous party service, however sincere, but whose knowledge of medicine consists of that which a hen would have of a neighbor about to pick up her lunch. I want some system that will assure that man who is on the way to serve that patient that he is going to be treated by those who know the value of what he is doing, on the one hand, the service of what he is doing, and that he too be protected by his government as one of those citizens and patriots that they are seeking to preserve.

Citizens, you have a great opportunity and before you a great authority. It is for you to say whether this great system of humanity is to be successful or whether you shall shrink again out of a sense of modesty and not wishing to touch public affairs allow it to drift to where it will be handled by those for political objects or other purposes that shall destroy its great usefulness. It is to you we who are public characters and public agencies in your line must look.

On motion of Dr. H. H. Shoulders, Tennessee, duly seconded and carried, the House gave a rising vote of thanks to Senator Lewis for the expressions he brought.

At 12:05 p. m. the speaker declared the House in recess until 1 p. m.

Fourth Meeting—Thursday Afternoon, June 10

The House of Delegates was called to order at 1:50 p. m. by the Speaker, Dr. N. B. Van Etten.

Report of Reference Committee on Credentials

Dr. B. F. Bailey, Chairman, reported that there was a total registration of 168, which was only four below the possible number that could be registered.

Roll Call

The Secretary called the roll and announced that more than a quorum had responded.

Presentation of the Minutes

It was moved by Dr. A. T. McCormack, Kentucky, seconded by Dr. J. E. Paullin, Section on Practice of Medicine, and carried, that the House dispense with the reading of the minutes.

Resolution on Address of Senator J. Hamilton Lewis

Dr. C. W. Roberts, Georgia, presented the following resolution, which was adopted on motion of Dr. Roberts, seconded by Dr. Arthur J. Bedell, Section on Ophthalmology, and carried:

Resolved, That the illuminating address of Senator James Hamilton Lewis be referred to the Board of Trustees for consideration and for subsequent reference to the House of Delegates if, in its wisdom, consideration by the House is deemed to be necessary.

Report of the Board of Trustees

Dr. Rock Sleyster, Chairman, presented the following report, which was adopted on motion, seconded by Dr. A. T. McCormack, Kentucky, and carried:

The Board of Trustees reports favorably on the creation of a Council on Industrial Health and, with the approval of the House of Delegates, will proceed with the organization of the Council as a committee of the Board.

Report of Reference Committee on Medical Education

Dr. F. S. Crockett, Chairman, presented the following report:

After further conference with many of those interested in defining the services to be rendered under contracts for group hospitalization, your reference committee believes that for the purposes contemplated in the Resolutions on Clarifying the Policy of the Americal Medical Association on the Question of Group Hospitalization, introduced by Dr. C. W. Stone in behalf of the Ohio State Medical Association, it is advisable to define hospital facilities rather than to attempt a comprehensive definition of medical practice.

It is recommended, therefore, that the contract benefit provided by group hospitalization insurance should be limited to the room, bed, board, nursing facilities ordinarily provided by hospitals, and routine medicines.

Your reference committee would refer to the report of the Board of Trustees as it appears in paragraph 4, page 83, of the Handbook, which was adopted by this House of Delegates yesterday. In that paragraph the limitations of hospital service are well defined. Your reference committee reaffirms this definition of hospital care and recommends its application to contracts for group hospitalization. In regard to certain benefits offered by many hospital insurance plans, combining professional and technical services, your reference committee is in complete sympathy with those who would make every possible provision to prevent inclusion of any and all types of service involving medical care.

It is the opinion of your reference committee that further conference between interested medical groups and the American Hospital Association would be of definite value in clarifying the twilight zone between hospital service and medical care.

Your reference committee has carefully considered the Resolution on Average Daily Census in Hospitals that had been presented by Dr. Henry A. Luce, Michigan, asking "That the House of Delegates of the American Medical Association direct the Council on Medical Education and Hospitals to approve hospitals meeting the requirements of the American Medical Association which have a daily census of fifty."

After extended conference with the Michigan delegation, your reference committee would recommend that the House of Delegates recommend to the Council on Medical Education and Hospitals that the daily average census of seventy-five might be waived in those hospitals which otherwise conform to the present standards and which, in the judgment of the Council, present exceptional opportunities for intern training.

Respectfully submitted.

F. S. CROCKETT, Chairman.
GEORGE BLUMER.
J. T. CHRISTISON.
C. A. DUKES.
W. E. VEST.

On motions, duly seconded and carried, the report of the reference committee was adopted section by section and as a whole.

Report of Reference Committee on Amendments to the Constitution and By-Laws

Dr. J. N. Baker, Chairman, presented the following report:

Your reference committee recommends the approval of the following resolution embodying a proposed amendment to the Principles of Medical Ethics:

Resolved, That the Principles of Medical Ethics, Chapter III, Article 6, New Section 3, be amended by the addition to paragraph 2 of the following:

The phrase "free choice of physician," as applied to contract practice, is defined to mean that degree of freedom in choosing a physician which can be exercised under usual conditions of employment between patient and physician when no third party has a valid interest or intervenes. The interjection of a third party who has a valid interest or who intervenes does not per se cause a contract to be unethical. A "valid interest" is one where, by law or necessity, a third party is legally responsible either for cost of care or for indemnity. "Intervention" is the voluntary assumption of partial or full financial responsibility for medical care. Intervention shall not proscribe endeavor by component or constituent medical societies to maintain high quality of service rendered by members serving under approved sickness service agreements between such societies and governmental boards or bureaus and approved by the respective societies.

Respectfully submitted.

J. N. BAKER, Chairman.
C. H. GOODRICH.
G. P. JOHNSTON.
V. E. SIMPSON.
T. F. THORNTON.

The report of the reference committee was adopted, on motion of Dr. Baker, seconded by Dr. Charles H. Goodrich, New York, and carried.

On motion of Dr. H. A. Luce, Michigan, seconded by Dr. L. J. Hirschman, Michigan, and carried, the Principles of Medical Ethics were amended as recommended by the reference committee.

Report of Reference Committee on Miscellaneous Business

Dr. J. D. Brook, Chairman, presented the following report, which was adopted on motion of Dr. Brook, seconded by Dr. John J. Masterson, New York, and carried:

Your reference committee, to which was referred the Resolution on Evils from Promiscuous Use of Barbituric Acid and Derivative Drugs, introduced by Dr. H. A. Luce, Michigan, is informed from the report of the Board of Trustees on page 67 of the Handbook that only fourteen of the forty-eight states have laws governing the sale of these drugs and believes that, to obviate criticism from laymen and attorneys in states not having controlling laws, the resolution is timely.

Your reference committee therefore recommends that the resolution be referred to the Board of Trustees, with the request that the Bureau of Legal Medicine and Legislation take such steps as in its judgment seem proper to bring the use of these drugs under governmental control, as requested in the resolution.

Respectfully submitted.

J. D. BROOK, Chairman.
H. L. BRYANS.
WALT P. CONAWAY.
C. S. SKAGGS.
C. W. WAGGONER.

Resolutions from Section on Ophthalmology Dealing with Action of Social Security Board Relative to Applicants for Blind Assistance

Dr. Arthur J. Bedell, Section on Ophthalmology, presented resolutions, which were amended to read as follows, and which were adopted, on motion of Dr. Bedell, seconded by Dr. E. J. Best, California, and carried:

WHEREAS, The Federal Social Security Act in Title Ten has placed on the Social Security Board the responsibility of entering into cooperative arrangements with the various states for the purpose of aiding those states in granting financial assistance to needy blind individuals and has ruled that individuals in the various states who apply for blind assistance must be examined by an ophthalmologist or a doctor of medicine skilled in diseases of the eye; and

WHEREAS, The Social Security Board has advised the official state agencies that have the responsibility of administering this aid in those states to employ a supervising ophthalmologist who will have general supervision over the medical determination of blindness within the state; therefore be it

Resolved, That the Section on Ophthalmology of the American Medical Association approves the action of the Social Security Board in requiring that applicants for blind assistance within the various states be examined by a regularly licensed and registered doctor of medicine skilled in diseases of the eye or by an ophthalmologist, as such a procedure will serve to secure a fuller knowledge as to the causes of blindness within the United States; and be it further

Resolved, That the Section on Ophthalmology of the American Medical Association goes on record as approving the suggestion of the Social Security Board that the official agency in the state or territory charged with the responsibility of administering blind assistance employ a supervising ophthalmologist whose duty will be the general supervision of the medical determination of blindness of those needy individuals applying for blind assistance; and be it further

Resolved, That the delegate from the Section on Ophthalmology of the American Medical Association be and is hereby instructed to present these resolutions to the House of Delegates.

Resolution from the Section on Nervous and Mental Diseases Dealing with Psychiatric Research

Dr. H. H. F. Reese, Section on Nervous and Mental Diseases, presented the following resolution, which was adopted on motion of Dr. Reese, seconded by Dr. J. Allen Jackson, Pennsylvania, and carried:

WHEREAS, Several organizations interested in promoting human welfare have manifested a deep interest in research into the causation, prevention and treatment of mental disease and have furnished substantial financial aid to the prosecution of such research; and

WHEREAS, The Rockefeller Foundation, the John and Mary R. Markle Foundation, the Josiah Macy Jr. Foundation and the Supreme Council of the Scottish Rite of Freemasonry for the Northern Masonic Jurisdiction have been outstanding in giving moral and financial support to such research; be it

Resolved, That the House of Delegates of the American Medical Association, on behalf of American psychiatry, hereby records its gratitude for the valuable service rendered to the cause of psychiatric research by these organizations and that it heartily endorses the importance of studies looking to a solution of the problems of mental disease.

Address of Mr. R. Watson Jones

The Speaker introduced the official representative of the British Medical Association, Mr. R. Watson Jones, who addressed the House as follows:

Mr. Speaker and Gentlemen: I have the great honor to represent the British Medical Association and to bring from England a cordial expression of good will and good fellowship

to the American Medical Association. Wherever I travel in America my pulse is stirred by the warmth of the greeting and by the sincerity of the hospitality which you have shown to a British surgeon. You must know and believe that we in England have an equally warm regard for our friends on this side of the Atlantic. We are eager and anxious to cooperate with you and, if we can, to fuse the stability of Great Britain with the progress of America.

In these days of industrial disturbance and of economic and political strife, the great English speaking nations must work together for the peace of the world. It has been a short time since American surgeons made a great sacrifice and came over to England to cooperate with British surgeons in the catastrophe of twenty years ago. God protect us from another such catastrophe. It is, however, well to remember that in our service to humanity, in our attempt to relieve suffering, we can work together side by side. The great arts, science, music, medicine, know no bounds of nationality; these are given to mankind; they are of service to the world, and if every physician and every surgeon works with this as his objective, when his work is done it may be said of him, as John Drinkwater said of Abraham Lincoln, "Now he belongs to the ages."

Mr. Speaker, on behalf of Great Britain I bring a very cordial greeting from the British Medical Association to the American Medical Association.

ELECTION OF OFFICERS

Dr. Olin West, Secretary, on request of the Speaker, read Sections 1 and 3, Chapter IV, of the By-Laws referring to nominations.

The Speaker appointed as tellers Drs. W. H. Mock, Arkansas, Chairman; E. S. Hamilton, Illinois; Walter A. Lane, Massachusetts; T. R. K. Gruber, Michigan, and E. L. Henderson, Kentucky.

Election of President-Elect

Dr. Arthur T. McCormack, Kentucky, nominated for President-Elect Dr. Irvin Abell, Louisville, Ky., and the nomination was seconded by Drs. J. E. Paullin, Section on Practice of Medicine; Joseph F. Smith, Wisconsin; Terry M. Townsend, New York; J. H. O'Shea, Washington; Ephraim R. Mulford, New Jersey; A. A. Walker, Alabama; E. G. Wood, Tennessee; Samuel P. Mengel, Pennsylvania, and the Pennsylvania delegation unanimously; C. W. Roberts, Georgia, for the Georgia delegation; Herbert L. Bryans, Florida; Charles A. Dukes, California; Horace Reed, Oklahoma; Felix J. Underwood, Mississippi, and Holman Taylor, Texas, for the Texas delegation.

It was moved by Dr. Arthur J. Bedell, Section on Ophthalmology, duly seconded and carried, that the nominations be closed.

Dr. J. W. Burns, Texas, moved that the Secretary be instructed to cast the unanimous ballot of the House for Dr. Irvin Abell as President-Elect. The motion was seconded by Dr. E. R. Mulford, New Jersey, and carried.

The Secretary cast the vote of the House for Dr. Irvin Abell, Louisville, Ky., as President-Elect of the American Medical Association for the ensuing year, and the Speaker declared Dr. Abell so elected.

Election of Vice President

Dr. Robert A. Peers, California, nominated for Vice President Dr. Junius B. Harris, Sacramento, Calif., and the nomination was seconded by Dr. B. F. Bailey, Nebraska, and Dr. Gunnar Gundersen, Wisconsin.

On motion of Dr. Harry H. Wilson, California, seconded by Dr. J. Newton Hunsberger, Pennsylvania, and carried, the nominations were closed.

It was moved by Dr. B. F. Bailey, Nebraska, seconded by Dr. J. Gurney Taylor, Wisconsin, and carried, that the rules be suspended and the Secretary be instructed to cast the ballot of the House for Dr. Junius B. Harris as Vice President.

The Secretary cast the ballot of the House for Dr. Junius B. Harris, Sacramento, Calif., as Vice President of the American Medical Association for the ensuing year, and the Speaker declared Dr. Harris so elected.

Election of Secretary

Dr. Horace Reed, Oklahoma, nominated Dr. Olin West, Chicago, to succeed himself as Secretary of the American Medical Association, and the nomination was seconded by Dr Charles A. Dukes, California. The nominations were closed on motion of Dr. B. F. Bailey, Nebraska, seconded by Dr. E. J. Best, California, and carried.

It was moved by Dr. B. F. Bailey, Nebraska, seconded by Dr. J. E. Paullin, Section on Practice of Medicine, and carried unanimously by a rising vote, that the rules be suspended, that the Speaker be instructed to cast the ballot for Dr. West and that the members be asked to signify their vote by rising.

The Speaker cast the ballot of the House for Dr. Olin West as Secretary of the American Medical Association and declared him elected Secretary for the ensuing year.

Election of Treasurer

Dr. Rock Sleyster, Chairman of the Board of Trustees, stated that the Board of Trustees nominated Dr. Herman L. Kretschmer, Chicago, as Treasurer. The nomination was seconded by Dr. Harold T. Low, Colorado. The nominations were closed on motion of Dr. G. Henry Mundt, Illinois, seconded by Dr. Robert A. Peers, California, and carried.

Dr. W. F. Braasch, Minnesota, moved that the Secretary be instructed to cast the ballot of the House of Delegates for Dr. Herman L. Kretschmer, Chicago, as Treasurer. The motion was seconded by Dr. Arthur J. Bedell, Section on Ophthalmology, and carried. The Secretary cast the vote of the House for Dr. Herman L. Kretschmer, Chicago, as Treasurer for the ensuing year, and the Speaker declared Dr. Kretschmer so elected.

Election of Speaker of the House of Delegates

The Vice Speaker, Dr. H. H. Shoulders, took the chair and announced that the next order of business was the election of a Speaker of the House of Delegates.

Dr. Floyd S. Winslow, New York, nominated for Speaker Dr. N. B. Van Etten, New York. The nomination was seconded by Dr. Joseph F. Smith, Wisconsin.

The nominations were closed on motion of Dr. Arthur J. Bedell, Section on Ophthalmology, seconded by Dr. Charles A. Dukes, California, and carried.

On motion of Dr. H. L. Snyder, Kansas, seconded by Dr. Charles A. Dukes, California, and carried, the Secretary cast the ballot of the House for Dr. N. B. Van Etten, New York, as Speaker of the House of Delegates for the ensuing year. The Vice Speaker declared Dr. N. B. Van Etten duly elected Speaker of the House of Delegates.

Address of President-Elect Irvin Abell

The Speaker presented the President-Elect, Dr. Irvin Abell, Louisville, Ky., who addressed the House as follows:

Mr. Speaker, Members of the House of Delegates:

I find my vocabulary quite inadequate to express to you the depth and the strength of my appreciation of the honor which you have done me and the state association of which I am a member in designating me as your President-Elect, the most signal honor in your power to bestow.

I look back on the many years of service in this House of Delegates as not only one of the happiest experiences of my professional career but one of the most inspiring. I have had the opportunity of drinking from the cup of knowledge, always kept filled to the brim with your policies of statesmanship; I have derived untold inspiration from your fellowship and your friendship, from your fidelity, your courageous spirit and your judgment in dealing with the problems of American medicine. As I look back over these years I see that the welfare and the health of the people whom we serve have ever been dominant factors in your efforts to furnish to the people of this country the highest medical service obtainable.

With a sense of my own shortcomings I accept in all humility this evidence of the confidence which you repose in me, with a full realization of the obligations and the responsibilities it entails, and at the same time with the firm determination so far as it lies within my power to walk faithfully in the footsteps of the distinguished men whom in years gone by you have so honored.

Election of Vice Speaker of the House of Delegates

The Speaker, Dr. N. B. Van Etten, resumed the chair and declared the next order of business to be the election of a Vice Speaker of the House of Delegates.

Dr. H. B. Everett, Tennessee, nominated for Vice Speaker Dr. H. H. Shoulders, Nashville, Tenn., and the nomination was supported by Dr. J. F. Hassig, Kansas, and Dr. Charles H. Goodrich, New York.

On motion of Dr. Horace Reed, Oklahoma, seconded by Dr. H. B. Everett, Tennessee, and carried, the nominations were closed.

Dr. G. Henry Mundt, Illinois, moved that the Secretary cast the vote of the House for Dr. H. H. Shoulders as Vice Speaker of the House. The motion was seconded by Dr. Harry H. Wilson, California, and carried. The Secretary cast the ballot of the House of Delegates for Dr. H. H. Shoulders, Nashville, Tenn., as Vice Speaker of the House of Delegates for the ensuing year, and the Speaker declared Dr. Shoulders elected Vice Speaker.

Election of Trustees

The Speaker declared the next order of business to be the election of two Trustees each to serve for a term of five years, and stated that the Trustees whose terms expire this year are Dr. Arthur W. Booth, Elmira, N. Y., and Dr. Rock Sleyster, Wauwatosa, Wis. He called for nominations for a Trustee to succeed Dr. Arthur W. Booth.

Dr. Frederic E. Sondern, New York, nominated Dr. Arthur W. Booth, Elmira, N. Y., to succeed himself as Trustee, and the nomination was supported by Drs. E. R. Mulford, New Jersey; E. H. Cary, Texas; J. Gurney Taylor, Wisconsin; Arthur T. McCormack, Kentucky; J. D. Hamer, Arizona; J. Newton Hunsberger, Pennsylvania, and Walter R. Steiner, Connecticut.

The nominations were closed on motion of Dr. E. R. Mulford, New Jersey, seconded by Dr. Arthur J. Bedell, Section on Ophthalmology, and carried, and the Secretary was instructed to cast the vote of the House for Dr. Arthur W. Booth, Elmira, N. Y., as Trustee, on motion of Dr. E. R. Mulford, New Jersey, seconded by Dr. Samuel F. Mengel, Pennsylvania, and carried.

The Secretary cast the ballot of the House for Dr. Arthur W. Booth to succeed himself as Trustee for a term of five years, and the Speaker declared Dr. Booth elected Trustee.

The Speaker declared the next order of business to be the election of a Trustee to succeed Dr. Rock Sleyster, Wauwatosa, Wis., whose term expires this year and who, according to the By-Laws, is not eligible for reelection.

Dr. F. S. Crockett, Indiana, nominated Dr. R. L. Sensenich, South Bend, Ind., and the nomination was seconded by Drs. H. L. Snyder, Kansas; Arthur T. McCormack, Kentucky; G. Henry Mundt, Illinois; Frederic E. Sondern, New York, on behalf of the New York delegation; J. Gurney Taylor, Wisconsin, and Arthur C. Morgan, Pennsylvania.

Dr. E. J. Best, California, moved that the nominations be closed, and the motion was seconded by Dr. J. J. Moore, Section on Pathology and Physiology, and carried.

On motion regularly made, seconded and carried, the Secretary cast the ballot of the House for Dr. R. L. Sensenich, South Bend, Ind., to succeed Dr. Rock Sleyster as a member of the Board of Trustees for a term of five years, and the Speaker declared Dr. Sensenich so elected.

Nominations for Standing Committees

Dr. J. H. J. Upham, President, submitted the following nominations for standing committees:

Judicial Council: Dr. John W. Burns, Cuero, Texas, to succeed Dr. Lloyd Noland, for a term ending in 1942.

Council on Medical Education and Hospitals: Dr. Charles Gordon Heyd, New York, to succeed Dr. Charles E. Humiston, for a term ending in 1944.

Council on Scientific Assembly: Dr. Clyde Cummer, Cleveland, to succeed Dr. Frank H. Lahey, for a term ending in 1942, and Dr. J. Gurney Taylor, Milwaukee, to fill the unexpired term ending in 1939 of Dr. Irvin Abell, who had been elected President-Elect of the American Medical Association.

On motions duly made, seconded and carried, each nomination was confirmed by the House of Delegates.

Election of Honorary, Affiliate and Associate Fellows

NOMINATION FOR HONORARY FELLOWSHIP

The Secretary submitted the nomination for Honorary Fellowship of Dr. Erich Hoffmann, Bonn, Germany, submitted by the Section on Dermatology and Syphilology and approved by the Council on Scientific Assembly.

APPLICANTS FOR AFFILIATE FELLOWSHIP APPROVED BY THE COUNCIL ON SCIENTIFIC ASSEMBLY

Bill, B. J., Genoa City, Wis.
Bobo, C. S., Norman, Okla.
Bryant, William S., New York.
Cobb, Albert C., Boston.
Denton, Myron P., New York.
Dolloff, A. S., New Hampton, N. H.
Grady, Henry D., Miami, Mo.
Greene, Edward M., Boston.
Hansell, William, Ottumwa, Iowa.
McCready, Joseph W., New York.
Nourse, Robert L., Boise, Idaho.
Numbers, Joseph R., Boise, Idaho.
Ramsay, R. Warren, York, Pa.
Richey, Sidney M., Tulsa, Okla.
Small, Charles P., Chicago.
Spilman, S. A., Ottumwa, Iowa.
Stickney, Henry L., Sunmount, N. Y.
Turnbull, Thomas, Jr., Casanova, Va.
Warren, N. A., Yonkers, N. Y.
Wilson, H. P., Wynnewood, Okla.

APPLICANTS FOR ASSOCIATE FELLOWSHIP FROM AMERICAN MEDICAL MISSIONARIES APPROVED BY THE JUDICIAL COUNCIL

McAnlis, William W., Legaspi, Albay, P. I.
Rost, Glenn Simon, Beirut, Syria.

APPLICANTS FOR ASSOCIATE FELLOWSHIP NOMINATED BY THE SECTIONS INDICATED

LARYNGOLOGY, OTOLOGY AND RHINOLOGY

Downs, William Gershon, New York.
Urban, Walter George, Pittsburgh.

PEDIATRICS

Kato, Katsuji, Chicago.

PHARMACOLOGY AND THERAPEUTICS

Nelson, Erwin, New Orleans.

PATHOLOGY AND PHYSIOLOGY

Bing, Franklin Church, Evanston, Ill.
Dore, Francis J., Chestnut Hill, Mass.
Queen, Frank B., Denver.

GASTRO-ENTEROLOGY AND PROCTOLOGY

Bollman, Jesse L., Rochester, Minn.

On motions duly made, seconded and carried, the nominations were approved and the nominees declared elected Honorary, Affiliate or Associate Fellows as indicated.

Place of 1938 Annual Session

The Speaker announced that the next order of business was the selection of the place and the fixing of the time of the 1938 annual session and called on the Board of Trustees for nominations.

Dr. Rock Sleyster, Chairman of the Board of Trustees, presented the following report:

Mr. Speaker, an invitation has been received to hold the 1938 annual session in San Francisco. The invitation is signed by the San Francisco County Medical Society, the California Medical Association, the mayor of San Francisco and the San Francisco Convention and Tourist Bureau. The facilities of San Francisco have been personally checked by the Secretary, the Business Manager and the Chairman of the Board and have been found to be adequate.

Dr. W. E. Kittler, Illinois, moved that the Association hold its 1938 annual session in San Francisco, and the motion was seconded by Dr. Arthur T. McCormack, Kentucky.

Dr. E. J. Best, California, extended an invitation from the medical profession in San Francisco and in California to have the Association meet in San Francisco in 1938.

Dr. Charles W. Stone, Ohio, in supporting the motion to meet in San Francisco in 1938, extended an invitation to have the Association meet in Cleveland in 1939.

Dr. Walt P. Conaway, New Jersey, invited the Association to meet in Atlantic City, N. J., in 1939.

The motion to have the Association meet in San Francisco in 1938 was carried, and the Speaker declared that San Francisco had been selected for the 1938 annual session of the American Medical Association.

Messages of Appreciation

The Vice Speaker took the chair and Dr. J. Newton Hunsberger, Pennsylvania, moved a vote of thanks and appreciation to the local committee on arrangements at Atlantic City for its splendid session, and the motion was amended to include an expression of appreciation and gratitude to the Speaker for the able work he has done and the courtesy he has extended to every member of the House of Delegates. The motion as amended was seconded by Dr. E. J. Best, California, and carried.

The Speaker resumed the Chair, and Dr. Harry H. Wilson, California, moved that a rising vote of thanks be extended to Dr. Rock Sleyster, retiring trustee, for his years of service to the Association. The motion was unanimously carried.

Communication from Citizens Committee for Support of WPA

The Secretary presented the following communication, which was referred to the Board of Trustees, on motion of Dr. Arthur J. Bedell, Section on Ophthalmology, seconded and carried.

House of Delegates of the
American Medical Association
in convention at
Atlantic City, New Jersey.

Attention of Dr. Charles Gordon Heyd, President

Gentlemen:

The Citizens Committee for Support of WPA wishes to express its commendation of your recognition of the principle that the health of the people is a direct concern of government. The sentiment of your Association in this regard will not fail to exert a powerful influence on public policy.

May we invoke this influence in the immediate interests of the health of the workers, to the number of from 600,000 to 1,000,000 who face momentary layoff from the WPA according to announcements of Administrator Harry L. Hopkins in the last two weeks.

To you as medical scientists, we cannot appeal from the sociological or the economic points of view, although we believe that these layoffs will be an incalculable economic and sociological disaster.

But we feel justified in appealing to you from a purely medical point of view, to endorse our principle: that if private employment is able to absorb the workers about to be laid off from WPA (which is not even claimed by the administration) then at least the "absorption" should be ensured to each worker before he is laid off.

For members of our committee have seen evidence of the havoc which previous layoff waves, of lesser scope, have wreaked upon the health of those laid off, and of their dependents, in the signed affidavits of dozens of physicians which were submitted to the administration when the damage had been done.

We feel justified also in anticipating your regret at the impending curtailment of the benefits of the many (yet still too few) medical projects of the WPA: of the nine million treatments and visits; the dental treatments to 386,000 children in New York City alone; the millions of inoculations and vaccinations against scarlet fever, diphtheria, influenza, typhoid, whooping cough, smallpox; the other medical care and laboratory research covering maternity, infant welfare, cardiac, hookworm, poliomyelitis, and tubercular fields, all reported by the administration in its official release of May 1.

May we urge you to take the opportunity, in your influential sessions, to record your sentiment against this curtailment, and to endorse the principle embodied in P4 above.

With most sincere respects,
BURRILL FREEDMAN,
Acting Secretary.

Committee on Distinguished Service Awards

The Speaker, in accordance with instructions received from the House of Delegates to appoint a Committee on Distinguished Service Awards, announced the appointment of the committee as follows:

Drs. H. H. Shoulders, Tennessee, for one year; J. W. Amesse, Colorado, and J. D. Brook, Michigan, each for two years; J. F. Hassig, Kansas, and Grant C. Madill, New York, each for three years.

The House adjourned sine die at 3:30 p. m.

(To be continued)

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION AND PUBLIC HEALTH.)

ARIZONA

Society News.—The Navajo-Apache County Medical Society has been dissolved on account of the vast geographic distance entailed for a meeting of the physicians in the two counties. The Apache County Medical Society has been organized as a separate unit, with Drs. Thomas J. Bouldin, St. Johns, and Guy E. Maxwell, Springerville, as president and secretary respectively.

COLORADO

Society News.—E. E. Howell, D.D.S., Grand Junction, discussed "Oral Focal Infection'" before a joint meeting of the Mesa County medical and dental societies, May 20, in Grand Junction.——At a meeting of the Northeast Colorado Medical Society in Sterling, May 13, Dr. Alfred M. Wolfe, Denver, discussed heart disease.——Dr. George L. Pattee, Denver, addressed a recent meeting of the Fremont County Medical Society on "Infections of the Head and Neck."——A recent meeting of the Delta County Medical Society was addressed by Dr. Lawrence L. Hick, Delta, on sulfanilamide in the treatment of streptococcic infections.

Midsummer Radiologic Conference.—The third midsummer radiologic conference sponsored by the Denver Radiological Club will be held at the Hotel Shirley-Savoy, Denver, July 15-17, with Dr. William W. Wasson, president of the club, presiding. Dr. Arthur J. Markley, Denver, president of the state medical society, will deliver the address of welcome. A symposium on the breast will be presented Thursday afternoon with the following speakers: Henry C. Tracy, Ph.D., Lawrence, Kan.; Drs. Frederic C. Narr, Ira H. Lockwood, James E. Stowers, Claude J. Hunt, all of Kansas City, Mo., and Lewis G. Allen, Kansas City, Kan. The evening session will be a joint meeting with the Medical Society of the City and County of Denver with Dr. Paul J. Connor, president of the society, presiding. The guest speakers will be Drs. Leo G. Rigler, Minneapolis, on "The Roentgen Examination in Preventive Medicine" and Henry Schmitz, Chicago, "The Selection of the Form of Treatment in Uterine Myomas." Other speakers on the program include:

Dr. Ernst A. Schmidt, Denver, Recent Advances in Diagnostic Radiology.
Dr. Paul C. Hodges, Chicago, Roentgen-Ray Pelvimetry and Cephalometry.
Dr. Leon J. Menville, New Orleans, Roentgenologic Studies of the Gastro-Intestinal Motor Phenomena.
Dr. Paul R. Weeks, Denver, Recent Advances in Radiation Therapy.
Dr. Hayes E. Martin, New York, Diagnosis, Treatment and Curability of Intra-Oral Cancer.

There will be round table discussions on the problems of diagnostic radiology and therapeutic radiology Friday and Saturday and the informal banquet will be held Friday evening at the Venetian Gardens.

CONNECTICUT

State Medical Election.—Dr. Hugh B. Campbell, Norwich, was chosen president-elect of the Connecticut State Medical Society at its annual meeting, May 20, in Bridgeport, and Dr. Charles H. Turkington, Litchfield, was installed as president. Dr. Creighton Barker, New Haven, was reelected secretary. The next annual session will be held in Groton and New London.

Society News.—Dr. Herbert S. Gasser, New York, director of the Rockefeller Institute of Medical Research, discussed "Nerve Fibers" before the Yale Medical Society, May 12.——Dr. Milton C. Winternitz, New Haven, discussed "Pathology of Vascular Disease" before the New London County Medical Association in Waterford, April 1.——At a meeting of the Hartford County Medical Association in Hartford, April 6, Dr. George Baehr, New York, spoke on "Visceral Manifestations of Syphilis."

Kline Exclusion Test Adopted by State Laboratories.—Beginning July 1, the bureau of laboratories of the Connecticut State Department of Health will use the Kline Exclusion Test as a routine test on all blood specimens for syphilis. The change will apply only to specimens of blood; spinal fluids will be tested as at present, it was stated. According to the bulletin of the state department of health, the change will make pos-

sible earlier reporting of specimens needing no further study. The change was agreed on after a study of comparative tests on more than 5,000 specimens.

Public Health Meeting.—The Connecticut Public Health Association held its annual meeting at the Hotel Taft, New Haven, May 26. Drs. Louis J. Dumont, New Britain, president of the society, and Joseph I. Linde, health officer of New Haven, gave opening addresses. Other speakers included:

Dr. Stanley H. Osborn, Hartford, state health commissioner, New State Public Health Legislation.
Leslie C. Frank, senior sanitary engineer, U. S. Public Health Service, Practical Methods of Safeguarding Milk Supplies.
John W. Murphy, mayor of New Haven, Public Health from the Viewpoint of a Mayor.
Dr. Reginald M. Atwater, New York, executive secretary, American Public Health Association, Today's Trends in Public Health.
Dr. Henry B. Moyle, director, Hartley-Salmon Clinic, Hartford, Applying What We Know in Mental Hygiene, with Special Reference to Public Health Nursing.
Dr. Herbert L. Lombard, Boston, director, adult hygiene, Massachusetts Department of Public Health, Lessons from the Massachusetts Cancer Program.

DELAWARE

Society News.—Dr. Ralph M. Tyson, Philadelphia, discussed "Tuberculosis in Childhood" before the New Castle County Medical Society in Wilmington, May 18; Dr. Ralph Pemberton, Philadelphia, spoke April 20 on the treatment of arthritis.

DISTRICT OF COLUMBIA

Medical Bill in Congress.—H. R. 6869 has passed the House, proposing to regulate the practice of cosmetology in the District of Columbia.

Personal.—Comdr. Charles S. Stephenson, medical corps, U. S. Navy, has been detailed as a member of the National Advisory Health Council, replacing Rear Admiral Charles S. Butler, resigned.

Medical Election.—Dr. Thomas E. Neill, Washington, was elected president of the Medical Society of the District of Columbia at its annual session, May 12, and Dr. Coursen B. Conklin, Washington, reelected secretary. The next annual meeting of the society will be held in Washington, May 4-5, 1938.

FLORIDA

Personal.—Dr. C. C. Witt, Arcadia, has been appointed supervisor of district number 2 of the state health department, with headquarters at Lake City.——Dr. Harold C. McDowell, Gastonia, N. C., has been named a member of the staff of the Florida Medical Center, Venice.——Dr. Rollin D. Thompson, medical director and superintendent, Wisconsin State Sanatorium, Statesan, has been placed in charge of the new state tuberculosis sanatorium at Orlando.——Dr. Leonidas M. Anderson, Lake City, was recently appointed inspector of the state institutions and administration advisor by the state board of health.

GEORGIA

District Meetings.—The Fifth District Medical Society held its annual meeting at the Academy of Medicine, Atlanta, April 29. The program was opened with addresses of welcome by Drs. Henry Clifford Sauls, Atlanta, and Benjamin H. Minchew, Waycross, presidents, respectively, of the Fulton County Medical Society and the Medical Association of Georgia. Other speakers were:

Dr. Frank K. Boland, Atlanta, Pathfinders in Southern Gynecology.
Dr. Bret Ratner, New York, Various Phenomena of Hypersensitiveness and Management of Asthma and Hay Fever in Children.
Dr. Edwin C. Hamblen, Durham, N. C., Clinical Value of the Present Preparations of Sex Hormones in Gynecology.
Dr. Porter P. Vinson, Richmond, Va., Frequent Causes of Dysphagia, with Suggestions as to the Management of Esophageal Obstruction.

At a meeting of the First District Medical Society in Millen recently, the speakers included Drs. Harry H. McGee and Leonard J. Hahne, both of Savannah, on "Some Facts About Lumbosacral Pathology as Revealed by the X-Ray" and "The Maintenance of Body Fluid Balance," respectively.——The Ninth District Medical Society was addressed at Toccoa recently, among others, by Dr. William A. Selman, Atlanta, on postoperative care of acute conditions of the abdomen; Straskernes A. Petroff, Ph.D., Trudeau, N. Y., tuberculosis, and Dr. Benjamin H. Minchew, Waycross.——Among other speakers, Dr. Otis R. Thompson, Macon, spoke on "Toxemia During the Last Trimester of Pregnancy" before the Second District Medical Society at Tifton, April 9, and Dr. Frank E. Thomas, Albany, "Management and Care of the New-Born."——Dr. Wilbur D. Hall, Calhoun, discussed "Mandelic Acid in the Treatment of Urinary Tract Infections" before the Seventh District Medical Society at Calhoun, April 7, among other speakers, and Dr. George B. Smith, Rome, "The Problems of Cross-Eyed Children."

ILLINOIS

Hospital News.—The Fox River Sanatorium, Batavia, observed its tenth anniversary, May 23, with the opening of its new $100,000 building. The new structure is two stories high and adds forty-four beds to the sanatorium, which is maintained by the Chicago Consumptive Aid Society.

Fifty Years of Practice.—Dr. Alfred E. Owens, Princeton, was presented with fifty silver dollars at a meeting of the staff of the Perry Memorial Hospital, May 21, in recognition of his completion of fifty years in the practice of medicine. A telegram from the state medical society announced that he had been made a life member. Speakers included Drs. Oliver J. Flint, Princeton; Samuel W. Hopkins, Walnut, and Charles C. Scott, Princeton.

Personal.—Dr. Karl M. Beck has been appointed county physician and superintendent of the Lake County General Hospital, Waukegan, for two years beginning July 1.——Dr. Robinson Bosworth has resigned as medical director of the Rockford Municipal Tuberculosis Sanatorium, effective September 1; it is reported that he is to accept a similar position with the new St. Clair County Tuberculosis Sanatorium, East St. Louis, which is to be erected this summer.——Dr. Donald W. Tripodi has resigned as superintendent of the Livingston County Sanatorium, Pontiac, to engage in private practice in St. Louis, it is reported.——Dr. Pierce A. Steele has been appointed health officer of Decatur, succeeding Dr. Wilmier M. Talbert, who resigned to engage in private practice.——Dr. Alban L. Mann recently completed twenty-five years as health officer of Elgin.

INDIANA

Dr. Carrel Lectures at Dedication.—The medical laboratory and medical building of Ball Memorial Hospital, Muncie, was dedicated April 24. Dr. Alexis Carrel, New York, of the Rockefeller Institute of Medical Research, delivered the dedicatory address on "The Past and the Future of Medical Research." Dr. Carrel was introduced by William Lowe Bryan, Ph.D., president of Indiana University, and Mrs. Edmund Burke Ball made the presentation of the building to the hospital in memory of her late husband. The new unit is one of three which make up the hospital and represent an investment of about $2,250,000, the gift of the Ball family.

Society News.—Dr. Charles P. Emerson, Indianapolis, presented a "Comparison of Physiological and Psychological Aspects of Eastern and Western Civilizations" before the Delaware-Blackford County Medical Society in Hartford City, April 20.——The Montgomery County Medical Society devoted its meeting, April 22, in Crawfordsville, to a symposium on tuberculosis with Drs. Wemple Dodds, Crawfordsville; Russell S. Henry, Indianapolis, and Paul D. Crimm, Evansville, as the speakers.——Dr. Russell L. Haden, Cleveland, addressed a joint meeting of the Fort Wayne Medical Society and the St. Joseph County Medical Society, April 21, on anemia.——At a recent meeting of the Adams County Medical Society in Decatur, Dr. Frederic G. Maurer, Lima, Ohio, spoke on the etiology, diagnosis and treatment of heart disease.——At a meeting of the Wayne-Union County Medical Society in Richmond, April 29, Dr. Charles O. McCormick, Indianapolis, spoke on "Analgesia in Labor and Modified Gwathmey Technic."——The Elkhart County Medical Society was addressed in Elkhart, April 29, by Dr. Robert M. Moore, Indianapolis, on acute cardiovascular emergencies.——Dr. Robert N. Wimmer, Gary, addressed the Porter County Medical Society in Valparaiso, April 27, on "Newer Points of View in the Treatment of Diarrhea, Intoxication and Dehydration in Infants."——Dr. James J. D. Hoover, Terre Haute, discussed "The Underprivileged Doctor" before the Vigo County Medical Society in Terre Haute, April 13.

IOWA

Personal.—Dr. John E. Wilkinson, Ottumwa, observed his one hundredth birthday, June 6.

Society News.—Dr. Kellogg Speed, Chicago, addressed the Black Hawk County Medical Society in Waterloo, May 18, on "Acute Epiphysitis of the Proximal End of the Femur" and "Everyday Injuries to the Knee Joint."——At a meeting of the Clinton County Medical Society, May 13, Dr. Fredrick A. Willius, Rochester, Minn., spoke on "Diseases of the Coronary Arteries."——The Floyd County Medical Society was addressed in Charles City, May 25, by Dr. Daniel J. Glomset, Des Moines, on "Modern Treatment of Congestive Heart

Failure."——A symposium on cancer was presented before the Harrison County Medical Society in Logan, May 18, by Drs. Francis X. Tamisiea, Missouri Valley; Samuel M. Clark, Woodbine; Elmer J. Cole, Woodbine, and Frank H. Hanson, Magnolia.——Dr. William F. Mengert, Iowa City, discussed "Toxemias of Pregnancy" before the Jasper County Medical Society, in Newton, May 4.——The Marshall County Medical Society held its annual summer clinic in Marshalltown, May 26. Dr. Waltman Walters, Rochester, Minn., the principal speaker at the banquet, discussed "Developments in the Management of Lesions of the Biliary Tract."——Dr. Thomas F. Thomsen, Red Oak, spoke on "Management of Diabetes with Protamine Zinc Insulin'" before the Montgomery County Medical Society in Villisca, May 27.——A joint meeting of the Pottawattamie and Woodbury county medical societies, May 24, in Council Bluffs, was addressed, among others, by Dr. Raymond J. Harrington, Sioux City, on electrocardiography.

Reunion of Past Presidents.—A reunion of past presidents of the Iowa State Medical Society was a feature at the annual meeting of the society in Sioux City. In attendance at a luncheon in their honor were:

Dr. William Jepson, Sioux City, 1906.
Dr. Walter L. Bierring, Des Moines, 1908.
Dr. Vernon L. Treynor, Council Bluffs, 1913.
Dr. Oliver J. Fay, Des Moines, 1924.
Dr. Frank M. Fuller, Keokuk, 1925.
Dr. Smith A. Spilman, Ottumwa, 1926.
Dr. John H. Peck, Oakdale, 1930.
Dr. Channing G. Smith, Granger, 1932.
Dr. William W. Bowen, Fort Dodge, 1933.
Dr. Charles B. Taylor, formerly of Ottumwa and recently of San Antonio Heights, Upland, Calif., 1934.
Dr. Gordon F. Harkness, Davenport, 1935.
Dr. Thomas A. Burcham, Des Moines, 1936.

A silver vase, the gift of Dr. Jepson, was the centerpiece for the table at the luncheon. Bearing the inscription: "Past Presidents of the Iowa State Medical Society," it contains the names and years of service of eighty-seven presidents, beginning with Dr. Enos Lowe, who served in 1851, and ending with Dr. Prince E. Sawyer, Sioux City, who completed his term at the 1937 session. With space remaining for thirteen more names, a list of 100 past presidents may be recorded on the vase, which will be a souvenir for future reunions of these officers.

LOUISIANA

New Officers of Specialty Societies.—The Louisiana Society of Gastro-Enterology was organized at a meeting in New Orleans, May 5, with the following officers: Drs. Abraham L. Levin, president; Herbert L. Weinberger, vice president, and Louis Ochs Jr., secretary.——Dr. Edward L. King, New Orleans, was chosen president of the Louisiana State Gynecological Society at its recent annual meeting in Monroe. Dr. Armand G. McHenry, Monroe, was elected vice president, and Dr. Henry B. Alsobrook, New Orleans, secretary.

MAINE

Society News.—At a meeting of the Androscoggin County Medical Society, May 20, Dr. Augustus Riley, Boston, discussed "Pain in the Kidney Region."——Dr. Millard Carroll Webber discussed pneumonia before the Portland Medical Club, May 4.——The Kennebec County Medical Association was addressed in Togus, May 27, by Drs. Joseph E. Wheeler on "Fracture of the Patella: An Original Method of Surgical Repair"; Francis T. Williams, "Sarcoma of the Prostate"; Harry Levine, "Vitamins: Classification, Indications and Dosage," and Harry A. Goalwin, "The Less Common Causes of Headache."

MASSACHUSETTS

Society News.—Dr. W. Russell MacAusland, Boston, discussed recent advances in treatment of fractures before the Pentucket Association of Physicians, May 13, in Haverhill.——Dr. Albert H. Miller, Providence, R. I., discussed "Postoperative Pulmonary Complications" before the Boston Society of Anesthetists in Boston, May 4.

Dr. Magrath Resigns as Professor of Legal Medicine.—Announcement is made of the resignation of Dr. George B. Magrath, professor of legal medicine, Harvard University Medical School, Boston, effective September 1. Dr. Magrath was the first incumbent to fill this chair when it was created in 1932. In 1935 he resigned as medical examiner of Suffolk County, a position he had held since 1907. Dr. Magrath graduated from Harvard in 1898, becoming in that year assistant in pathology. In 1934 the George Burgess Magrath Library of Legal Medicine at the university was dedicated in his honor. Mrs. Francis Gleffner Lee, Littleton, N. H., provided the funds for both the professorship and the library.

MICHIGAN

Annual Upper Peninsula Meeting.—The fortieth annual meeting of the Upper Peninsula Medical Society will be held in Houghton, August 19-20. Speakers will include:

Dr. Herman L. Kretschmer, Chicago, Personal Experiences in the Treatment of Bladder Neck Obstructions by Means of Transurethral Electroresection (Review of 1,000 Cases).
Dr. David A. Cleveland, Milwaukee, Late Results of Intracranial Brain Trauma.
Dr. Michael L. Mason, Chicago, Management of Felon, Tenosynovitis and Acute Spreading Infection of the Hand.
Drs. John S. Lundy and Richard C. Adams, Rochester, Minn., Methods of Anesthesia and a Method of Blood Transfusion for the General Practitioner.
Dr. John D. Steele Jr., Ann Arbor, Treatment of Empyema.
Dr. Henry K. Ransom, Ann Arbor, Acute Surgical Lesions of the Abdomen.
Dr. Avery D. Prangen, Rochester, Early Treatment of Strabismus as Related to the General Practitioner.
Dr. Frank N. Wilson, Ann Arbor, Coronary Occlusion.
Dr. Howard K. Cummings, Ann Arbor, Importance of Examinations of the Cervix Uteri.
Dr. Geza de Takats, Chicago, Vascular Accidents of the Extremities.
Dr. Vernon L. Hart, Minneapolis, Orthopedic Surgery.

MISSISSIPPI

State Medical Election.—Dr. Joseph E. Green, Laurel, was chosen president-elect of the Mississippi State Medical Association at its annual meeting in Meridian, May 13, and Dr. William L. Little, Wesson, was installed as president. Dr. Thomas M. Dye, Clarksdale, was reelected secretary. The next annual session will be held at Jackson, May 10-12, 1938.

MISSOURI

New Officers of Special Societies.—Merl P. Moon, Ph.D., associate professor of bacteriology and preventive medicine, University of Missouri, Columbia, was chosen president-elect of the Missouri Public Health Association at its recent annual meeting in Springfield, April 29-30, and Dr. Edwin H. Schorer, Kansas City, was installed as president. Dr. John W. Williams, Jefferson City, is secretary.——Dr. Ralf Hanks, Fulton, was elected president of the Missouri Association for Mental Hygiene at its meeting in Fulton, May 2.

Personal.—Dr. Max A. Goldstein, founder and director of the Central Institute for the Deaf, St. Louis, received the honorary degree of doctor of laws from Washington University at its commencement, June 8. The institute is affiliated with the university.——Dr. Henry W. Schulz, St. Louis, was feted by the staff of the Lutheran Hospital, June 9, in recognition of his forty-eight years as a member of the staff.——Dr. Karl E. Maneval, Mexico, has been appointed health officer of Audrain County, succeeding the late Dr. Robert W. Berrey.

Flood Rehabilitation Project.—A program to rehabilitate the ten flood stricken counties in southeast Missouri was to have begun early in May, newspapers reported. Four district health units were set up to administer the program in the ten counties, the personnel in each unit including a health officer, sanitary engineer and two nurses, and sanitary inspectors. Dr. John Ben Jones, Charleston, is the health officer in district 1, covering Scott and Mississippi counties, with headquarters in Charleston. Health officers in other units are:

Dr. Theodore L. Waddle, Holden, district 2, Stoddard and New Madrid counties, headquarters in Dexter.
Dr. Asa Barnes, Kennett, district 3, Pemiscot and Dunklin counties, headquarters in Kennett.
Dr. Lynn M. Garner, Poplar Bluff, district 4, Butler and Ripley counties, to be expanded to include Carter and Wayne counties, headquarters in Poplar Bluff.

NEW HAMPSHIRE

Personal.—Dr. Zatae Longsdorf Straw, Manchester, received the honorary degree of doctor of science from Dickinson College, Carlisle, Pa., at the annual commencement. Dr. Straw is said to have been the first woman graduate of the college fifty years ago. She graduated from the Woman's Medical College of Pennsylvania, Philadelphia, in 1890 and spent some time in a government hospital for Indians in Idaho before going to live in Manchester. She has served in the state legislature.

NEW JERSEY

Personal.—John H. Northrop, Ph.D., of the Rockefeller Institute for Medical Research, Princeton branch, received the honorary degree of doctor of science at the annual commencement of Columbia University, June 1.

Tuberculin Testing in the Schools.—The testing of high school students in Jersey City to detect tuberculosis was begun, April 21, by Dr. Berthold S. Pollak, director of the Hudson County Tuberculosis Hospital, Secaucus, and his associates,

Drs. Immanuel Pyle, Abraham E. Jaffin and Leonard B. Fauquier, Jersey City. The physicians work in groups of six, with the assistance of eight nurses. Following the inoculation, students showing a positive reaction were to be x-rayed.

NEW YORK

Personal. — Dr. Joe R. Clemmons, assistant director of Strong Memorial Hospital, Rochester, has been appointed director of Roosevelt Hospital, New York. Dr. Clemmons, a graduate of the University of Tennessee School of Medicine, Memphis, in 1924, has been in Rochester since 1930. —— Dr. Claude W. Munger, who recently resigned as superintendent of Grasslands Hospital, Valhalla, was honored at a farewell dinner at the Westchester Country Club, May 11, by various official groups with which he has been associated. Dr. Munger has been appointed director of St. Luke's Hospital in New York City.——Dr. James M. Blake, assistant superintendent of Glenridge Sanatorium, Schenectady, has been made superintendent to succeed Dr. James C. Walsh, who recently went to the Nassau County Sanatorium, Farmingdale. ——Dr. Fraser D. Mooney, medical superintendent of Buffalo General Hospital, was elected president of the Hospital Association of New York State at the annual meeting in New York, May 21.——Dr. Frank F. Williams recently celebrated his fiftieth anniversary as health officer of the town of Canton. ——Dr. Arthur J. Bedell, Albany, will sail June 30 for England to address the Oxford Ophthalmological Congress in July.

New York City

Society News.—At the last meeting for the season of the Medical Society of the County of New York, May 17, the speakers were Drs. Aaron Brown, on "Skin Manifestations of Allergy"; Albert Vander Veer, "Treatment of Hay Fever"; Robert Chobot and Robert A. Cooke, "Treatment of Asthma," and Maximilian A. Ramirez, "Internist vs. Allergist." —— Dr. John R. Carty addressed the New York Roentgen Society, May 17, on "Roentgen Ray Therapy as a Diagnostic Measure in Tumors of the Mediastinum and Superior Sulcus."

Dr. Ballard Named Dean of College of Pharmacy.— Charles W. Ballard, Ph.D., professor of materia medica, Columbia University College of Pharmacy, has been appointed dean of the school, succeeding Henry V. Arny, Ph.D., whose retirement becomes effective July 1. Dr. Ballard received his degrees in pharmacy and philosophy at Columbia, where he has been teaching since 1907. He has been micro-analyst of the New York City Department of Health since 1917 and an associate member of the revision committee of the U. S. Pharmacopeia since 1920.

Personal.—Dr. George Gray Ward, emeritus professor of obstetrics and gynecology, Cornell University Medical College, and chief surgeon of the Woman's Hospital, will be made an honorary fellow of the British College of Obstetricians and Gynecologists, October 22, in London. Other Americans who received this honor were the late Drs. John Whitridge Williams, Baltimore, and William P. Graves, Boston. —— The Harlem Eye and Ear Hospital gave a dinner, June 3, for Dr. Charles Bramman Meding in honor of his completion of fifty years of medical practice and as a trustee of the hospital. Dr. Meding graduated from Columbia University College of Physicians and Surgeons in 1887.——Dr. Raphael A. Bendove, assistant clinical professor of medicine, Long Island College of Medicine, Brooklyn, has been appointed assistant professor of clinical medicine at the New York Post-Graduate Medical School.——Dr. Clement B. Masson has been promoted to be assistant professor of neurologic surgery at Columbia University College of Physicians and Surgeons.——Dr. Stephen E. Manheimer, recently at Mount Sinai Hospital, has been appointed executive director of the Jewish Hospital of Brooklyn, succeeding Dr. Morris Hinenburg.

NORTH CAROLINA

Commission to Study Establishment of Medical School. —Gov. Clyde R. Hoey has appointed a commission authorized by the recent legislature to study the advisability of establishing another four year medical school in the state. Members of the commission are Drs. William M. Coppridge, Durham; William de B. MacNider, Chapel Hill, dean, University of North Carolina School of Medicine; Coy C. Carpenter, Wake Forest, dean of Wake Forest College School of Medical Sciences; Thomas W. M. Long, Roanoke Rapids, secretary of the Medical Society of North Carolina; Benjamin J. Lawrence, Raleigh, secretary of the state board of medical examiners; Judge L. R. Varser, Lumberton, and Joe W. Garrett, Madison. The commission will submit a report to the 1939 general assembly.

NORTH DAKOTA

Meeting of Specialty Society.—Dr. Henry P. Rosenberger, Bismarck, was elected president of the North Dakota Academy of Ophthalmology and Otolaryngology at the annual meeting in Grand Forks during the annual session of the North Dakota State Medical Association in May. Dr. Nelson A. Miles Youngs, Grand Forks, was made vice president and Dr. Frederick L. Wicks, Valley City, secretary. Dr. Arthur E. Smith, Los Angeles, was the guest speaker, on "Reconstructive and Plastic Oral Surgery."

OHIO

Society News.—The Academy of Medicine of Cincinnati was addressed, May 18, by Drs. Joseph B. Biederman on "Prevention of Constitutional Reactions in the Treatment of Allergic Patients" and Eslie Asbury, "Newer Methods in the Treatment of Fracture of the Hip." Dr. Otto J. Seibert presented a case report on "Multiple Annular Carcinomata of the Large Bowel."

Veteran Practitioners Honored.—Drs. P. Calvin Hartford, East Palestine, and Wilbert A. Hobbs, East Liverpool, who have practiced medicine for more than fifty years, were guests of honor at the annual outing of the Columbiana County Medical Society at the East Palestine country club, June 3. Dr. Harry Bookwalter, Columbiana, was toastmaster at the dinner, which followed a golf tournament. —— Dr. Henry LuSern Hinkley has completed fifty years of practice in Green Springs; he was the first health officer of Seneca County, holding the position six years.

Plaque in Memory of Dr. Perkins. — A bronze plaque has been placed in the reading room of the department of hygiene and bacteriology of Western Reserve University School of Medicine in memory of the late Dr. Roger G. Perkins, who was professor of hygiene and preventive medicine at the school from 1910 to 1930 and professor emeritus from 1930 to 1936. He had been associated with the school since 1901. Dr. Perkins, who died March 28, 1936, also served, among other positions, as chief of the bureau of laboratories of the Cleveland division of health, city bacteriologist, consultant to the commissioner of health and director of the laboratories and chairman of the Cleveland Health Council.

OKLAHOMA

Society News. — Dr. Bert E. Mulvey, Oklahoma City, addressed the Garfield County Medical Society, Enid, May 27, on "Cardiac Arrhythmias" and Dr. Bert F. Keltz, Oklahoma City, "Use of Protamine Insulin."——Dr. Albert L. Salomon, Oklahoma City, was elected president of the Oklahoma Pediatric Society at the annual meeting during the session of the Oklahoma State Medical Association, which was held in Tulsa in May. Dr. Ben H. Nicholson, Oklahoma City, was elected secretary of the society.

PENNSYLVANIA

Society News.—At a meeting of the McKeesport Academy of Medicine, May 24, Charles G. King, Ph.D., professor of chemistry, University of Pittsburgh, Pittsburgh, discussed "Recent Advances in the Science of Nutrition."——A symposium on the prevention and control of scarlet fever was presented before the Montgomery County Medical Society in Norristown, June 16, by Drs. Stuart Mudd, Philadelphia; Max Strumia, Bryn Mawr; Percival Nicholson, Ardmore, and Pascal F. Lucchesi, Philadelphia.——Dr. George P. Müller, Philadelphia, discussed "Surgical Diagnosis" before the Delaware County Medical Society at its meeting in Chester, June 17.—— At a meeting of the Fayette County Medical Society in Uniontown, June 13, Dr. Leo H. Criep, Pittsburgh, discussed "The Rôle of Allergy in the Practice of Medicine."

Philadelphia

Professor of Otology Appointed. — Dr. Horace James Williams has been appointed professor of otology at Jefferson Medical College to succeed the late Dr. Joseph Clarence Keeler. Dr. Williams graduated from Jefferson in 1912 and has been practicing in Philadelphia since 1917. For several years he has been associate in otorhinology at the Graduate School of Medicine of the University of Pennsylvania. He is director of service, department of otolaryngology, at the Germantown Dispensary and Hospital, and on the consulting staff of the Philadelphia Hospital for Contagious Diseases and Memorial Hospital.

Pittsburgh

Medical Bureau Established. — The Medical Bureau of Pittsburgh, sponsored by the Allegheny County Medical Society and the Odontological Society of Western Pennsylvania, opened June 1 at 1513 Clark Building, Seventh Street and Liberty Avenue. The bureau will be operated on a nonprofit basis and as soon as a sufficient cash surplus is accumulated the facilities will be expanded to provide more services, according to the *Pittsburgh Medical Bulletin*.

Prizes for Intern Case Reports.—The first prize in the twentieth annual case report contest of the Allegheny County Medical Society went to Dr. John B. Wood, Mercy Hospital, for his report of an unusual cause of portal thrombosis in a case reported in the service of Dr. John W. Fredette. Second prize was awarded to Dr. Gertrude E. Martin, Columbia Hospital, Wilkinsburg, who reported a case in the service of Dr. William B. Hetzel of noma in a man aged 52 years following acute vegetative endocarditis. Dr. Wood graduated from the University of Michigan School of Medicine, Ann Arbor, in 1936, and Dr. Martin, Woman's Medical College of Pennsylvania, Philadelphia, 1936.

SOUTH DAKOTA

State Medical Election.—Dr. John F. D. Cook, Langford, was chosen president-elect of the South Dakota State Medical Association at its annual meeting in Rapid City, May 24-26. Dr. Earle A. Pittenger, Aberdeen, was installed as president and Dr. Clarence E. Sherwood, Madison, was elected secretary to succeed Dr. Cook, who has served several years in that office. The 1937 session will be held in Huron.

TENNESSEE

Upper Cumberland Annual Meeting.—The Upper Cumberland Medical Society held its forty-third annual meeting at Cookeville, June 24-25. Among the speakers were:

Dr. Owsley Grant, Louisville, Ky., Report of Recent Series of Prostatic Cases Operated on by Various Methods.
Dr. Franklin Jelsma, Louisville, Common Surgical Lesions of the Brain and Spinal Cord.
Dr. John B. Youmans, Nashville, Some Aspects of Postgraduate Training.
Dr. Henry L. Douglass, Nashville, Urology for the General Practitioner.
Dr. Rettig Arnold Griswold, Louisville, Fractures of the Humerus.

WASHINGTON

Plague Infection Appears in Washington.—According to *Public Health Reports*, plague infection has been proved, by animal inoculation and cultural reactions, in fleas and lice taken from ground squirrels in Adams County. This is believed to be the first positive evidence that plague exists among wild rodents in Washington. The locality in which the infected fleas and lice were collected is the most northern point in the United States in which wild-rodent plague has been found, it was stated.

HAWAII

Annual Territorial Meeting. — Dr. Thomas Keay, Pepeekeo, was chosen president of the Hawaii Territorial Medical Association at its annual meeting in Hilo recently, and Dr. Douglas B. Bell, Honolulu, was reelected secretary. The next annual meeting will be in Honolulu. The program was presented by:

Dr. Frederick K. Lam, Honolulu, Maternal and Child Program in Hawaii Under the Social Security Act.
Dr. Carl W. Tempel, medical corps, U. S. Army, Biliary Giardiasis.
Dr. Howard E. Crawford, Hilo, Trachoma in Hawaii.
Dr. Gideon M. Van Poole, Honolulu, A Case of Papilloma of the Larynx in a Child.
Dr. Carl J. W. Wilen, Hilo, Tuberculosis of the Trachea and Main Bronchi.
Dr. Richard T. Treadwell, Kohala, A Rural Birth Control Program.
Dr. Adolph G. C. Schnack, Honolulu, Roentgen Kymography of the Heart.
Joseph E. Alicata, Ph.D., Honolulu, A Study of Trichinosis and Infectious Jaundice in the Hawaiian Islands.
Drs. James S. Shinn and Nils P. Larsen, Honolulu, Hookworm Infestation in Hawaii.
Dr. Fred L. Adair, Chicago, Obstetric Hemorrhage.
Dr. Albert J. Desautels, medical corps, U. S. Navy, Present Status of Urology in the Navy.
Dr. Arthur W. Duryea, Honolulu, Meningococcus Epidemics in Honolulu, 1929 and 1930.
Dr. Guy C. Milnor, Honolulu, Obstetrics in Hawaii.
Dr. Albert R. Behnke Jr., Pearl Harbor, medical corps, U. S. Navy, Anesthesia.
Dr. Clifford G. Grulee, Evanston, Ill., Anemias of the New-Born.

Dr. Lyle G. Phillips, Honolulu, gave his presidential address at a general session Friday evening.

GENERAL

American Documentation Institute. — The American Documentation Institute has recently been incorporated to develop and operate facilities that are expected to promote research and knowledge in various intellectual fields. The primary objective of the new organization will be to develop and apply the new technic of photomicrography to library, scholarly, scientific and other material. The board of trustees elected consists of Robert C. Binkley, Ph.D., Western Reserve University, Cleveland; Solon J. Buck, Ph.D., Washington, D. C., director of publications, National Archives; Watson Davis, Washington, D. C., director, Science Service; James Thayer Gerould, Litt.D., librarian, Princeton University Library, Princeton, N. J., and Dr. Ludvig Hektoen, Chicago, chairman of the National Research Council.

Digest of Treatment.—Volume I, number 1, of *Digest of Treatment* has just appeared, with the date of July 1937. The periodical will contain digests of articles, dealing specifically with treatment, published in various periodicals. A board of editors has been established. Many of the articles in the current issue deal with newer developments related to insulin. A wide range of periodicals has been consulted, although all the publications digested are English. Whether or not an abstract or digest periodical of this character is needed in the field of medicine will, of course, be determined by the extent of its use. Digests in other fields have apparently depended for their success on the choice of material and on the quality of the digest. This publication proposes to make its success wholly on an editorial basis, since advertising will not be carried.

Association of Obstetricians, Gynecologists and Abdominal Surgeons.—The annual meeting of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons will be held at the Homestead, Hot Springs, Va., September 20-22. Among speakers listed on the preliminary program are:

Dr. William Wayne Babcock, Philadelphia, Improvements in the Operative Treatment of Carcinoma of the Large Bowel.
Dr. Cameron Duncan, Brooklyn, Treatment of Vesicovaginal Fistula.
Drs. James R. Goodall and Richard M. H. Power, Montreal, Visceral Allergy.
Dr. Jean P. Pratt, Detroit, Early Diagnosis of Carcinoma of the Fundus.
Dr. Frederick S. Wetherell, Syracuse, N. Y., Diverticulitis of the Lower Colon in Women—Differential Diagnosis and Treatment.
Dr. Walter T. Dannreuther, New York, Frank-Geist Operation for Congenital Absence of the Vagina.

Dr. Daniel Dougal, Manchester, England, will deliver the Joseph Price Memorial Oration, on "The Problem of Endometriosis."

Changes in Status of Licensure. — The Kansas State Board of Medical Registration and Examination reports the following action:

Dr. John W. Yankey, Mankato, license revoked, April 15, for conviction of a felony.

The Kentucky State Board of Health recently reported the following actions taken at its January meeting:

Dr. William Hammond Ashby, Oakland, license revoked.
Dr. Eugene Fogle Beard, Somerset, license revoked.
Dr. James W. Griffin, Lewisport, license restored; it was revoked Jan. 20, 1936.

The Massachusetts Board of Registration in Medicine reports the following:

Dr. Arthur E. Brides, Stoughton, license restored April 20.
Dr. William Martin Walsh, Boston, license revoked April 1 for gross professional misconduct.
Dr. Hans William Bencker, Jamaica Plain, license revoked April 1 for gross professional misconduct.

The Illinois State Department of Registration in Medicine reports the following:

Dr. Abraham Benjamin, New York, license revoked May 8 because of his conviction of attempted grand larceny in New York.
Dr. Milton M. Glascoe, Jacksonville, Ill., license restored April 14.

Medical Bills in Congress.—*Changes in Status:* H. R. 6906 has passed the House, proposing to regulate the use of cannabis. This bill, among other things, proposes an excise tax of $1 a year on physicians, dentists, veterinary surgeons and other practitioners who distribute, dispense, give away, administer or prescribe cannabis to patients on whom they, in the course of professional practice, are in attendance. Such practitioners are to be required to keep a record of all cannabis dispensed to a patient, showing the amount transferred and the name and address of the patient. This record must be kept for a period of two years. S. 2113 has been reported to the Senate, proposing to provide benefits on account of disability or death due to service in the armed forces of the United States in the event of war. *Bills Introduced:* S. 2572, introduced by Senator Pope, Idaho, proposes to amend the Social Security Act so as to increase grants to states for aid to dependent children by providing for payment to the state of an amount equal to one half instead of one third of the sums

expended by the state during each quarter. H. R. 7580, introduced by Representative Pace, Georgia, proposes that, in the administration of the laws and regulations providing for pension and compensation to veterans of the World War, any veteran disabled or deceased prior to Jan. 1, 1925, from lymphatic leukemia or pernicious anemia shall be presumed to have acquired his disability during the World War or to have suffered an aggravation of a preexisting lymphatic leukemia or pernicious anemia during such period.

Bequests and Donations. — The following bequests and donations have recently been announced:

Lancaster General Hospital, Lancaster, Pa., received half the $55,000 estate of Alfred B. Grubb and will receive the other half after the termination of a trust.

Lankenau Hospital, Philadelphia, $5,000 by the will of Mrs. Emma V. Arthur.

Presbyterian Hospital, Philadelphia, $15,000 by the will of George A. Walker.

Pennsylvania Hospital, Philadelphia, $21,000 by the will of the late Emily Dawson.

New York Eye and Ear Infirmary, Presbyterian Hospital and Roosevelt Hospital, all of New York, $10,000 each by the will of the late Samuel Hopkins.

New Haven and Grace hospitals, New Haven, Conn., $1,000 each, and Hospital of St. Raphael, New Haven, $2,000 by the will of Noyes D. Clark, New Haven.

Methodist Episcopal Hospital, Philadelphia, $20,000 to endow a free room for Methodist ministers; Misericordia Hospital, Philadelphia, $5,000 by the will of Mrs. Sarah B. Field.

Meeting of Urologists.—The thirty-fourth annual meeting of the American Urological Association will be held at the Radisson Hotel, Minneapolis, June 28-July 1. The program will include symposiums on hydronephrosis, renal tumors and pyogenic prostatitis. The speakers at the general sessions will include:

Drs. Nelse F. Ockerblad and Hjalmar E. Carlson, Kansas City, Mo., The Distribution of Ureteral Pain as Determined by Faradic Stimulation in Man.

Drs. Carl F. Rusche and Samuel K. Bacon, Hollywood, Calif., Primary Ureteral Neoplasms, with Report of Two Cases and Review of the Literature.

Drs. J. Duane Miller and William J. Butler, Grand Rapids, Mich., Studies on Cystocele and Urinary Incontinence in the Female by Use of Cystograms and Urethrograms.

Drs. Richard Chute and Sylvester B. Kelley, Boston, Lesions of the Urinary Tract Producing the Symptoms of Intra-Abdominal Disease.

Drs. Walter G. Maddock and Reed M. Nesbit, Ann Arbor, Mich., Fundamentals in Water Balance.

Drs. Ira R. Sisk, John B. Wear and Andrew J. Trinkle, Madison, Wis., Peritoneal Lavage in Cases of Elevated Nonprotein Nitrogen of the Blood.

Drs. Norris J. Heckel and Willard O. Thompson, Chicago, The Influence of the Anterior Pituitary-like Hormone on the External Genitalia of Young Boys.

Drs. Charles B. Huggins and William J. Noonan, Chicago, Observations on Spermatocele.

Drs. Grayson L. Carroll, Bransford Lewis and Louis C. Kappel, St. Louis, Further Clinical and Laboratory Observations of Mandelic Acid.

Dr. Gilbert J. Thomas, Minneapolis, will deliver his presidential address Wednesday on "The Treatment of Renal Tuberculosis" and Dr. William F. Braasch, Rochester, Minn., the Rámon Guiteras Lecture on "Clinical Data with Chronic Pyelonephritis."

Conferences on Health Education.—The National Committee on Mental Hygiene and local mental hygiene societies recently cooperated in holding conferences on education and mental health in Wilmington, Del., Philadelphia and Detroit, in an effort to promote closer understanding between educators and psychiatric leaders and more constructive measures on behalf of mental health in elementary schools. "Michigan's Mental Health—A Challenge to Medicine" was the theme of a medical session during the Detroit conference. Speakers included:

Dr. Robert H. Haskell, medical superintendent, Wayne County Training School, Northville, Mich., chairman.

Dr. James S. Plant, director, Essex County Juvenile Clinic, Newark, N. J.

Dr. Raymond W. Waggoner, director of the State Psychopathic Hospital, Ann Arbor.

Dr. Martin H. Hoffmann, Dearborn, director, parole clinic, Eloise Hospital, Eloise.

Dr. William H. Marshall, Flint.

Dr. Raymond B. Allen, dean, Wayne University College of Medicine, Detroit.

Drs. John C. Montgomery and Hugo A. Freund, both of Detroit.

Other speakers who participated in the various sessions included Drs. Clarence M. Hincks, New York, director of the national committee; Earl D. Bond, medical director, Mental Hygiene Institute, Pennsylvania Hospital, Philadelphia; Ira S. Wile, New York; Frederick H. Allen, director, Philadelphia Child Guidance Clinic; Camilla M. Anderson, Philadelphia, secretary, Pennsylvania Mental Hygiene Committee of the Public Charities Association; Bruce B. Robinson, director of the department of child guidance, Newark, N. J.; Messop A. Tarumianz, superintendent of the Delaware State Hospital, Farnhurst, and George S. Stevenson, New York, National Committee for Mental Hygiene.

FOREIGN

Memorial to Crawford Long Unveiled.—A bronze plaque was recently unveiled as a memorial to Crawford W. Long in the library of the Royal College of Surgeons of Edinburgh. It was the gift of the Southern Society of Clinical Surgeons in the United States and bears the dates 1815-1878 and the inscription: "Discovered ether anesthesia at Jefferson, Georgia, March 30, 1842." Mr. Charles R. Nasmith, the American consul, unveiled the plaque, which was presented by the American society in appreciation of the reception accorded its members when they visited Edinburgh in June 1936.

Congress for Protection of Infancy.—The second International Congress for the Protection of Infancy will be held in Rome, October 4-8, following the fourth International Pediatric Congress, which will be September 24-30. There will be two sections of the congress, hygienic-sanitary and juridical-social, according to an announcement. Official languages will be English, French, German, Italian and Spanish. Members of the organizing committee are Drs. Giovanni B. Allaria, director of the pediatric institute of the Royal University of Turin; Nicola Pende, director of the institute of medical pathology, University of Rome; Francesco Valagussa, director of a preventorium in Rome, and Paolo Gaetano, attorney of the supreme court of Italy and vice president of the Italian union for child welfare. For information address Dr. Allaria, Corso Bramante 29, Torino 120.

Deaths in Other Countries

Sir Samuel Squire Sprigge, editor of the *Lancet* since 1908 and a member of its staff since 1892, died in London, June 17; he would have been 77 years old June 22. He received the degree of bachelor of medicine at Cambridge University in 1887 and the degree of doctor of medicine from the same university in 1904. He also studied at St. George's Hospital. He was a member of the Royal College of Surgeons of England and a fellow of the Royal College of Physicians. He accompanied Sir Walter Besant to Chicago in 1893 to attend a literary congress and after his return to England became assistant editor of the *Lancet*. In 1928 he visited the United States again to deliver the Hunterian Oration before the American College of Surgeons at its meeting in Boston in October. His subject was "Grand Curiosity." He served as chairman of the Society of Authors from 1910 to 1913. He was knighted in 1921. Sir Squire published in 1896 "The Life and Times of Thomas Wakley," the founder of the *Lancet*, and edited in 1901 "The Autobiography of Sir Walter Besant." He also edited "Conduct of Practice." Other publications included "Methods of Publishing," "Odd Issues," "An Industrious Chevalier," "Medicine, Its Practice and Public Relations," "Some Considerations of Medical Education," and "Physic and Fiction."

Government Services

Food Seizures in April

The U. S. Department of Agriculture reports the seizure of large shipments of sea foods during April. The greatest number of seizures was of fresh crabmeat contaminated during packing with filth and bacteria, with a total of 3,340 pounds confiscated in metropolitan areas of the Atlantic seaboard. Other canned fish seized because of decomposition were 810 cases of salmon and 550 of tuna. Parasitic worm infestation accounted for the seizure of 66,000 pounds of herring and 1,200 pounds of Canadian whitefish. There were 9,340 shipping cases of raisins seized because of contamination with hydrocyanic acid gas as a result of emergency fumigation during the maritime strike on the Pacific coast. There were 47,900 pounds of rice seized; it had been stored on ship in contact with containers of lead chromate, which sifted out and penetrated the sacks. Drug items seized during the month included 296 packages of absorbent cotton and 876 of gauze bandages, not sterile as labeled; 1,343 cans of impure anesthetic ether; 177 bottles of an isopropyl alcohol solution sold as rubbing alcohol unqualified; two consignments of glandular preparations which did not exhibit the physiologic activity claimed on the labels. The many fines imposed included one on the Goodwin Preserving Company, Louisville, $330 and costs for short weight apple butter and preserves deficient in fruit, and $350 and costs on the Davis Cleaver Produce Company, Inc., Quincy, Ill., for butter containing less than the legal minimum of butter fat.

Foreign Letters

LONDON

(From Our Regular Correspondent)

May 29, 1937.

Conference on the After-Care of the Tuberculous

The occasion of the coronation, which brought representatives from all parts of the British empire, was taken advantage of to organize a meeting of delegates to discuss the care and after-care of tuberculosis in the British empire. Sir Kingsley Wood, minister of health, said that until ten years ago tuberculosis stood foremost in England among diseases as a cause of death. In 1851-1855 it had a standardized death rate of 3,638 per million of population. Since then there had been a continuous decline, until in 1935 the rate was only 687. Nevertheless tuberculosis was in this country on the list of killing diseases next to cancer. At the end of 1935 there were in England and Wales 29,000 beds in institutions for the treatment of tuberculosis, and the country was covered with a network of tuberculosis dispensaries working in touch with physicians and health officers. The minister particularly commended village settlements for the tuberculous, where provision was made not only for treatment but for suitable occupation. Lord Horder, who presided over one of the sessions, said that, while there had been a considerable advance in the past two generations, the tendency to speak of tuberculosis as under control was an overstatement. In some parts of the empire the diagnosis of tuberculosis struck a death knell, as it formerly did in this country. The process of racial immunization was only beginning in those places.

THE BAD EFFECT OF CITY ENVIRONMENT

Dr. Sidney Vere Pearson spoke of the factors in city life which promoted tuberculosis. Big cities were sucking up the people from the rest of the country. The conditions that seemed to have a bearing on tuberculosis were (1) the time and energy wasted in traveling to and from work, (2) the growing difficulty of obtaining open-air recreation, and (3) the anxiety associated with city life in these days. Was it realized that London was 30 miles across? A town healthily planned might have a low tuberculosis and general death rate. The tuberculosis death rate for Letchworth garden city was only 38 per hundred thousand.

Dr. Frederick R. G. Heaf of the public health department, London County Council, said that the average incidence of tuberculosis for certain outdoor manual workers in London was greater than for indoor workers. He regarded this as a criticism of the idea that open air was essential to treatment. The actual cause of breakdown in tuberculosis was obscure; infection did not seem to be the chief item. The class that endured the hardest physical strain, received the lowest wages and spent the smallest amount on food was the one most prone to tuberculosis. Fatigue and undernourishment probably called for greater attention in a highly civilized and mechanized country.

ENVIRONMENTAL FACTORS IN CARE AND AFTER-CARE

Sir Pendrill Charles Varrier-Jones (the pioneer of the village settlement for the treatment of tuberculosis) thought that after-care was the most powerful method now available for the prevention of tuberculosis. The idea that only material environment need be considered was inadequate. Resistance was governed not only by material conditions but by the mental state, which might bring about imbalance of the endocrine system and so predispose to tuberculosis. In treatment the psychologic aspect, which was much neglected by physicians, must be considered. Enforced idleness led to destruction of moral fiber. But work of the right kind for the patient should be provided. It was disastrous to put him to what he regarded as an inferior job. After-care must be linked to hospital sanatoriums. Too frequently the tuberculous were regarded as inferior—the medieval outlook. They were the victims of civilization. Society should try to compensate for the wrong it had done them by providing the best environment and restoring their working capacity.

INDIA

Major-General Sir Cuthbert Allan Sprawson said that the steady decline of tuberculosis in England had not occurred in the overseas countries and certainly not in India. Trustworthy figures were not available, but the public health commissioner recently estimated that there were about two million tuberculous persons in India. This was probably an underestimate, because many cases were undiagnosed and unreported. The death rate from pulmonary tuberculosis in Ipswich was 52 per hundred thousand, and in Chicago 56, but in Calcutta it was said to be 240 and was probably higher. Industrialization, especially if not controlled, and the free immigration of a rural population into cities were accompanied by an increase of tuberculosis, and this danger now existed in India and was an urgent problem.

CANADA

Dr. Robert E. Wodehouse said that Canada's attitude to the tuberculosis problem was greatly influenced by that of the United States. The death rate from tuberculosis in 1936 was about 60 per hundred thousand, about a third of what it was thirty years ago. Among the North American Indians the rate was high, about 700, while in other parts of the population it was as low as 25. In some areas there was ample free accommodation for any one with tuberculosis. While a man was in the hospital the state gave his wife the same pension as if she were a widow, and if she was the patient he received an allowance for a housekeeper.

Hospital Scheme for the Middle Man

While there are many charities for the sick poor, the large mass of workers with salaries from $1,250 to $2,500 have been passed over. Yet they are often not so well off, because of the claims on them, as many are of the so-called working class and cannot afford nursing fees. For some years the governors of St. Bartholomew's Hospital have realized the need for some provision for this class, but they are precluded by the terms of the hospital charter from applying any of its funds for this purpose. They are bringing forward a scheme for the erection of a special ward block adjoining the hospital, to be run as a financially separate entity but enjoying all the advantages and services which a large hospital offers, where persons of moderate means can be treated for a modest charge and where the services of the eminent physicians and surgeons of the hospital will be available. It is proposed to raise a capital sum of about $600,000 for the erection and equipment of the building.

The Storage of Food

The Advisory Council of the Department of Scientific and Industrial Research has published an important report on research, carried out at the Low Temperature Station, Cambridge, on the storage of food. The effect of radiation from radioactive substances in destroying bacteria is being studied in connection with the storage of meat. Methods of storing eggs in different concentration of carbon dioxide are being tried. It has been found that a concentration of 60 per cent prevents attack on eggs by molds and gives an excellent yolk but an especially fluid white. Pears have been stored in refrigerated chambers with the atmosphere adjusted to the correct amount of carbon dioxide for long periods extending well into the summer. Their flavor, texture and appearance were entirely satisfactory. Excellent results under commercial conditions have been obtained by improved methods for the preservation of peas by freezing. Quick cooling and freezing following blanching in hot water were essential. The color and flavor of the peas were improved by the addition of from 0.1 to

0.15 per cent of sodium carbonate. The storage of flour is being studied. It has been found that during storage the bacteria content diminishes to a small value, while the fungous content rises to high values.

Samuel Kinnier Wilson

Neurology has sustained a great loss by the death of Dr. S. A. Kinnier Wilson at the age of 59. The son of an Irish clergyman, he was born in New Jersey, U. S. A., and educated at Edinburgh University. He was house physician to Sir Byrom Bramwell, a great teacher who turned his interest into neurologic channels. He settled in London, where he became physician and neurologist to King's College Hospital and physician to the National Hospital, Queen's Square. At the latter he came under the influence of Hughlings Jackson and imbibed from him a philosophic approach to neurologic problems. He is known all over the world for his discovery in 1911 of progressive lenticular degeneration, which is called "Wilson's disease." He showed that spasticity and tremor could be produced by a symmetrical lesion in the putamen and caudate nucleus. This was the beginning of knowledge of the motor functions of the basal ganglions. An accomplished writer and eloquent lecturer, he illuminated many neurologic subjects—aphasia and apraxia, disorders of motility and muscle tone, narcolepsy, hysteria and epilepsy. In 1920 he became editor of a new periodical, *The Journal of Neurology and Psychopathology*, which was later taken over by the British Medical Association. In 1928 he published "Modern Views on Neurology," in which he wove his own observations on many subjects into the fabric of neurology. But he did not live to publish what would probably have been his most important work, a textbook of neurology on which he had been engaged for ten years. He had written over three quarters of the text and he has left the remainder in unfinished form. It was expected that, with his gift of lucid exposition, he would have produced a standard international textbook like that of Gowers in the last generation. The hope remains that his colleagues will be able to complete the book so that a great loss to the medical world will not take place.

PARIS

(From Our Regular Correspondent)

May 29, 1937.

Opposition to Proposed Antivenereal Disease Law

The principal paragraphs of the bill now before the senate, which aims to prevent the spread of venereal diseases, were cited in a previous letter (THE JOURNAL, March 20). The question whether it would be possible to carry out some of the requirements of the proposed law was actively discussed at a recent medical meeting in Lyons. Dr. Charles Fouqué strongly objected to the paragraphs which make it obligatory for the attending physician to inform the public health authorities as soon as a patient consults him for a venereal disease and that the carrier of a venereal disease can be fined or imprisoned if he or she shall knowingly transmit it, and to the attempt to stop the present plan of medical inspection of licensed street walkers and houses of prostitution and substitute for it the closing of resorts of all types in which prostitution is carried on.

Dr. Fouqué maintained that such a plan would be ideal but that its authors were not realists and failed to see conditions as they actually exist. Those who wished to institute social reform measures ought to be realists and not idealists. No physician worthy of the name would feel obligated to reveal what he considered to be a professional secret. Syphilis is, after all, a disease which the carrier wishes to keep secret and does not wish to have known at either a hospital or a dispensary. The speaker believed that strict compliance with this compulsory notification feature of the law would defeat its object as a preventive measure of the spread of venereal diseases. The patient who is financially able to consult a physician at his office will avoid doing so when knowing that the public health authorities must be informed of the nature of the ailment, and as a last resort the patient will be driven into the hands of quacks.

It will also be difficult, on account of the relatively long period of incubation of syphilis, to decide as to when the patient is in a state of being able to contaminate others. Nine times out of ten, neither the health official nor the judge will be able to determine who has been the carrier; hence the door is left open for many a case of blackmail of the suspected carrier. As to the measures for the suppression of prostitution, it will soon be found that these cannot be carried out. There are a certain number of women, the type as described by Lombroso, who will follow a life of prostitution, some for pecuniary gain, others not.

Fouqué endorsed the work of two of his colleagues, Carle and Lacassagne, who have accomplished excellent prophylactic work among the prostitutes of Lyons. Street soliciting can and ought to be suppressed. The Italian method of dealing with the question of prostitution was warmly endorsed. The houses are provided with all hygienic facilities to prevent contamination and are subjected to constant and strict medical and police surveillance. It would be desirable that these houses should be visited by women health inspectors, who should make every effort to bring it about that those who have been forced to live the life of prostitutes might be removed and given an opportunity to earn a livelihood elsewhere. Fouqué made a plea to the members of parliament not to pass a law that would soon be found to be inoperative.

Official to Direct Use of Leisure Time of Workers

One of the results of the forty-hour week law has been to give every worker one free day a week in addition to Sunday. For banks in larger cities, the free day is Saturday. In smaller communities the banks will close on Monday. All insurance companies are closed Saturdays and the same is true of factories. Grocery stores, butcher shops and bakeries will be closed on Monday. The large retail stores are attempting to solve the problem of whether to close all day Saturday or Monday. These details are cited to show how a law works out which gives two days a week leisure time to all workers, including even those employed on railroads. For the latter as well as for hotels and restaurants, the question of reducing the working week to forty hours is an especially difficult one.

How should the worker spend this extra day a week to the best advantage? The government, at the time the forty-hour week law was passed in 1935, created an assistant secretaryship of sports and leisure. The first occupant of this office is an energetic young man, Mr. Leo Lagrange, who has just announced his program in the April 18 issue of one of the Paris evening journals, the *Soir*. He stated that it was his ambition to do all in his power to encourage the creation of a strong, healthy and happy people by having them spend two days a week in the open air. A branch of the central bureau will be formed in each of the eighty-six departments of France to encourage the development of physical education. Mountain climbing and skiing enthusiasts will find shelters in every one of their favorite regions. A large park for all kinds of sports is being planned now, within an hour's ride from Paris, at Montlhéry. Similar recreation parks will be created within a radius of 30 miles from Paris in all of the metropolitan areas. The problem of building special paths for cyclists, as now exist in Belgium, will not be an easy one in France, where there are more than ten million people who prefer bicycle riding to any other form of outdoor exercise. Mr. Lagrange is also thinking of the season when inclement weather interferes with all outdoor sports except skating and skiing. He is planning to encourage workers to utilize their extra day of leisure (Saturday or Monday) to visit the museums or the cinemas and to

plan to take their annual vacations (with full pay) in winter instead of in summer. Special excursion rates will be arranged so that the worker will benefit by visiting other parts of France and also foreign countries. More than 500,000 persons engaged in skiing and other mountain sports during the past winter. The program to encourage the intellectual and physical condition of the workers is an ambitious one and it will be interesting to watch such a state-directed policy.

Application of Forty-Hour Week to Medical Laboratories

At the March 5 meeting of the organization of the Parisian region which looks after public relations of the medical profession, a protest was voted against the application of the forty-hour week law to the personnel of laboratories. The reasons given were that it was impossible, as in industry, to change those in charge of laboratory work at stated intervals. A medical technician who has commenced an analysis cannot always turn it over at a certain hour to another, but ought to follow it through to the end himself. The plea that the forty-hour week would decrease unemployment cannot apply to laboratories, because there are not more than 300 trained technicians in France, all of whom are employed. To close the laboratories all day, either on Saturdays or Mondays, as is now the case in industry, would be a hardship. Many examinations require continuous work for two or three days and it is often not practicable to suspend an analysis for two days (Saturday and Sunday or Sunday and Monday respectively) in succession. This new forty-hour week law as applied to industry, hospitals and laboratories has raised many a thorny problem for the employers.

Denatality Both a Moral and an Economic Problem

An intensive study of the question of natality in France has just been terminated and appears in the April 17 *Presse médicale*.

It was shown that there has been a decrease in the number of births as compared to the number of deaths here since the World War. The two classes that contribute almost entirely toward the maintenance of at least an equilibrium between the number of births and the number of deaths are certain of the middle classes and the poorer peasant class, the latter because they need help on their farms. The upper middle classes contribute less than any other toward an increase in the birth rate. The remedies that have been proposed are, first, to raise the moral standard of the younger generation by encouraging the "boy scout" movement and by making home life more attractive for girls; second, to create an economic environment which will favor natality, such as awards for large families, financial aid for young couples and abolition of taxes varying according to the number of dependents. At the March 7 meeting of the national assises under whose auspices this study of denatality was made, Dr. Sireday mentioned as causes the widespread use of contraceptives, abortion, sterility due to salpingitis, and the large number of women suffering from pulmonary tuberculosis. Speakers from various regions of France presented statistics. In the mountainous portions, the natality was 35 per thousand compared to 15 per thousand at lower altitudes. In the mining regions of northern France the natality had decreased from 35 to 18 per thousand. In Brittany, the annual number of births varies, having dropped during the past twenty years in one department (county) from 23,000 to 13,000, and in another the excess of births over deaths during the same interval has dropped from 3,300 to 150. In the majority of cases, this denatality was due to economic causes. In Normandy, denatality is especially marked, owing to the flocking of people from villages and small towns to the larger cities.

Mr. Risler, president of the commission on denatality, mentioned three important causes: (1) the rapidly increasing use of alcoholic beverages; (2) syphilis, which causes 140,000 deaths a year, and (3) abortions, which are estimated to interrupt from 300,000 to 500,000 pregnancies annually.

Congress of French Alienists and Neurologists

The forty-first congress of French Alienists and Neurologists will be held June 30-July 5 at Nancy. Reports will be made on the following subjects: In psychiatry: Acute alcoholic delirium from the biologic point of view, by Dr. Bargues of Agen. In legal medicine: Neuropsychiatric examination of recruits, by Major B. Pommé of the Val-de-Grace Military Hospital of Paris. In neurology: Cerebellar atrophy by Dr. N. Peron of Paris.

BERLIN

(From Our Regular Correspondent)

May 20, 1937.

Congress of the Society of Internal Medicine

The German Society of Internal Medicine met at Wiesbaden during Eastertide with Professor Siebeck of Berlin presiding. The first main topic of discussion was nutrition. The opening report on "New Concepts of Nutrition" was read by Professor Bessau, ordinarius in pediatrics at Berlin. Among the causes of nursling mortality, deaths of premature infants no longer loom as large as formerly. The great body of fatalities occurring later in infancy are ascribable to defective nutrition. Every mistake in nutrition during the nursling stage gives rise to well known symptoms indicative of depleted vitality. The development of young children so affected remains arrested at an early infantile stage. If in the first half year of life a nutritional disturbance is present, a resultant pathologic syndrome will manifest itself in the second half year. The foregoing problems were discussed in detail with particular consideration of the vitamins. According to Bessau, bottle milk feeding is an immediate cause of hypovitaminosis, since the need of supplementary nutritive substances (above all vitamins B_1 and C) will be determined by the supply of nutritional elements of the first order. Among diseases based on vitamin deficiency belong cardiac dysfunctions in over fattened children and in status thymicolymphaticus. If defective nutrition leads to dysfunction of the mesenchyma, the latter condition may prove ultimately pathogenic for such diseases of age as cirrhoses, atherosclerosis and arthritis deformans. Many mesenchymoses of old age may be conditioned by constitutional factors, but the pathogenic rôle of the exogenous noxa has certainly been greatly exaggerated. Disturbances of nutrition should henceforth be studied and treated on a larger scale as a disease condition of fundamental importance.

Professor Bürger, policlinician of Bonn, next read a report on the nutritional treatment of diabetes in which he voiced his opposition to the so-called free diet advocated by Stolte for childhood diabetes. In insulin therapy one should take into account the glycogen which increases the blood sugar and which can even be obtained from dry insulin. In adults various aspects of treatment with insulin are to be considered. Not a maximal but an optimal amount of carbohydrate is required. The quantity will be determined by the state of metabolism and the amount of work performed. The favorable action of fruits and vegetables is apparently to be attributed to the supplementing substances; therefore more natural, unaltered carbohydrates should be supplied. In the discussion of Bürger's paper, the most varied opinions were expressed by both the pediatricians and the internists.

Among other papers submitted was that of Otfried Foerster of Breslau on the vegetative regulation of the hypothalamus. It is not always established with certainty that from the nuclei of the third ventricle fibers pass toward the hypophysis. It is certain, however, that the hormone of the posterior lobe passes into the third ventricle. That a diabetes insipidus appears after extirpation of the hypophysis cannot be verified, as

long as the tuber cinereum is unimpaired. If, however, the tuber cinereum is destroyed also, which happens in dogs, disturbances of growth will be manifested and later on obesity. If hypophysial damage has taken place, any of an extraordinary diversity of symptoms may appear, including hypertonia, hypersexuality and diabetes insipidus. Clinical observations have demonstrated that radical removal of the sella turcica will be followed by diabetes insipidus only if the floor of the third ventricle is damaged in the vicinity of the regio hypothalamica. The accompanying phenomena are psychic defects and hyperthermia.

The third day was given over to reports on the pathology of the thyroid. The first speaker, Eugster of Zurich, discussed the pathogenesis of endemic goiter with particular consideration of the question of heritability. Two large scale examinations were made of 15,000 persons from fourteen Swiss villages. A first series of examinations was carried out in 1912-1913 and a second twenty years later. With respect to heritability it was ascertained that susceptibility in older siblings is greater than among the younger; the latter are often spared because the mother has acquired a fully developed goiter after several pregnancies. Goitrous immigrants into goiter-free regions have goiter-free progeny, so in such instances the environmental influences preponderate. Research on twins yielded the following important observations: dizygotic twins who are goiter carriers are not affected in the same manner; enzygotic twins, however, virtually always exhibit completely (and even histologically) identical types of goiter. Accordingly it is considered proved that in the pathogenesis of goiter the capability of reaction against external influences is inherited. Climatic influences are expressed by the incidence of the manifestation in certain "goiter years." Even the "little climate" may be a factor: residence in a lower story results much more frequently in the production of goiter than residence in an upper story. Thus it was observed that in enzygotic twins, that is, twins representing identical hereditary factors, the twin who resided in a lower story became goitrous, whereas the other twin who lived upstairs did not. Distribution of goiter in various localities is chiefly domiciliary and not familial. Regarding the influences exerted by the soil, it can be said that regions abounding in water favor the development of goiter. Abundance of iodine may counteract the factors conducing to goiter within a particular region, but this does not mean that goiter zones must necessarily be deficient in iodine. The aggregate of observations lead one to conclude that the pathogenesis of endemic goiter is to be explained in terms of environmental influences on the phenotype as well as in heredity. That is to say, in addition to the inherited traits other factors must be considered such as topography, meteorological variations, the atmosphere of the dwelling, the type of community and the nature of the soil. These environmental factors tend to interfere with hereditary modifications and traits. The whole salt (iodized salt) prophylaxis has been used with favorable results. Wilhelm Falta of Vienna discussed the interrelation of exophthalmic goiter and the diencephalon. In that disease the thyroid center is observed to be in a state of heightened irritability. The increased thyroid activity depends in part on the state of stimulation in the diencephalon but there likewise exists a primary state of irritability in the regio subthalamica. However, this does not mean that all cases of exophthalmic goiter are conditioned by the central nervous system. Falta concluded on the basis of his investigations that the increase in thyroid function makes possible secondary alterations of the centrum: in addition to the peripheral point of attack the thyroxine possesses another point of attack in the diencephalon and this is especially the case in toxic influences. Conversely, there exists in the nervous disorders that involve the diencephalon high grade resistance to thyroxine. Other observations too speak for the central path. Because of the possibility that the increased blood sugar content may be lowered in exophthalmic goiter by the use of barbituric acid derivatives, experiments have been attempted with a "twilight sleep" produced by these substances and a measure of success has been obtained. Many pathologic manifestations are thus abolished, such as tachycardia, perspiration and tremor. This provides ground for the assumption that by use of this method the thalamencephalic centrum in its increased state of irritability may be reduced. The level of iodine in the blood also was diminished by around 30 per cent. Against the concept of a pituitary type of exophthalmic goiter as a disease entity is the fact that in this disease the thyrotropic hormone in the blood is not increased. Neither is central exophthalmic goiter to be regarded as a distinct type. In concluding his report, Falta repeated his contention that the etiology of exophthalmic goiter is to be sought in a plurality of factors. His observations led him to believe that psychic trauma too may frequently influence the pathogenesis. This report was followed by an extensive discussion.

The fourth day of the congress was dedicated to the problems of tuberculosis. As the internists met in joint session with the German Tuberculosis Society, this day's proceedings are reported separately.

Tuberculosis Congress

The German Tuberculosis Society met during Eastertide at Wiesbaden in joint session with the German Society of Internal Medicine. The first principal topic was "Of What Importance is a General Tuberculous Infection to the Human Organism?" Speaking as a pathologist, Professor Huebschmann of Düsseldorf said that tuberculosis in any form is a general disease of the entire organism. Alterations of the myocardium, spleen and kidneys ought rather to be ascribed to the general debility of the tuberculous organism and are connected with the destruction of tissue which is so extensively manifested in tuberculosis. Whether or not certain independent disease entities such as rheumatism and many nervous disorders are in any way associated with the direct action of the bacillus of tuberculosis remains doubtful. In conclusion, Dr. G. v. d. Weth of Beelitz Sanatorium, speaking as a pathologist, said that the pathogenic importance of quiescent scars of a previously arrested tuberculosis should not be overestimated. Furthermore, there are the stationary tuberculous processes with bacillary excretions which, with respect to the individual, are hardly to be designated as disease, yet which for the environment and the nation represent foci of disease necessitating medical and prophylactic measures. Deist of Ueberruh discussed from a clinical point of view the manifold phenomena of tuberculosis in various organs. The importance of pleuritis exsudativa as the initial symptom of a previously unmanifested tuberculosis is certain, if another etiologic disorder, pneumonia or polyarthritis, for example, is not present. Many manifestations in various organs, as the blood vessels or the heart, in the gastro-enteric canal or in the liver, may be explained in terms of the hematogenic reciprocal toxic effect of the bacillus of tuberculosis. Cases of tuberculous rheumatism are to be similarly evaluated, but general incorporation of acute polyarthritis within the framework of tuberculosis can by no means be considered as certain. The question whether and to what extent the tuberculosis bacilli may (intact or merely functionally) pass through damaged organs without producing an organic tuberculosis is best studied in the kidneys. The bacillus of tuberculosis is able under certain conditions to pass through a kidney without producing any clinically tangible results. There can be no question that tuberculosis is capable of exerting direct influence on the course of recognized mental disorders, schizophrenia in particular.

The topic of discussion on the second day was specific chemotherapy in tuberculosis. Schlossberger of Berlin said that no significant observations with respect to tuberculosis in man

could be elicited from chemotherapeutic experimentation with animals. In the artificially infected experimental animals the disease follows a wholly disparate course from that which it takes in the human subject. In animals the antituberculosis defense forces of the organism seem to be virtually nonexistent. Accordingly, advances in the chemotherapeutic approach to tuberculosis can be achieved only by careful verification of the effect of seemingly suitable new substances on the human organism. The speaker is of the opinion that in treatment with gold the compound, in addition to its influence on the cells of the infected organism, also directly affects the bacilli of tuberculosis. Prof. Adolf Bacmeister of St. Blasien, speaking from the clinical point of view, said that at present the best founded theory was that of an action chiefly catalytic and nosotropic exercised by the gold compound on the reticuloendothelial system. This effect is manifested clinically by a focal reaction and an activization of the general defense mechanisms. Thus this type of treatment serves at one and the same time as a stimulation therapy and as a treatment directed against the disease as such. It is indicated in all exudative and productive forms of tuberculosis, provided the organism's reticulo-endothelial system still possesses sufficient power of reaction. The use of newer improved preparations has reduced, if it has not yet abolished, the danger of a noxious influence of the gold. All other forms of chemotherapy, the speaker said, are of minor importance compared with the gold treatment.

SWITZERLAND

(From Our Regular Correspondent)

April 24, 1937.

The Use of Roentgen Therapy in Malignant Tumors

According to H. R. Schinz, professor of roentgenology at Zurich, in the *Münchener medizinische Wochenschrift,* in Switzerland, a country of 4,200,000 population, 5,696 persons died of cancer in the year 1930. In the canton of Zurich alone there were, during the same year, 1,913 cancer deaths in a population of 611,000 and in the city of Zurich 385 cancer deaths in a population of 245,000. One in every eight deaths occurring in Switzerland is due to cancer and the proportion for both the canton and the city of Zurich is one cancer death in every seven. Cancer has increased, he believes, as a result of the increased average age of the population. The curve of cancer mortality has passed the curves for infant mortality and fatal tuberculosis. In the city of Zurich, cancer is the most frequent cause of death; in the year 1934, for example, 17 per cent of all fatalities were due to cancer as against 9 per cent to tuberculosis and 15 per cent to arteriosclerosis. During the years 1926 to 1933 the upper respiratory and alimentary tracts (with the exception of the esophagus) were the fourth most frequent seat of cancer among males. If cancers of the esophagus had been included, these areas would have occupied second place.

In cancers of the upper respiratory and alimentary tracts the most important therapeutic procedure is irradiation. Three principal methods are available: treatment with roentgen rays, with radium and with telecurietherapy. Most patients coming to Zurich for treatment are in a stage when local roentgen therapy is no longer possible. Telecurietherapy cannot be carried out because of the scarcity of the element. Roentgen treatment is therefore administered in the form of a protracted-fractionated and prolonged irradiation. This treatment is rigorous, it may even give rise to exudative radio-epidermitis and fibrinous radio-epithelitis and these lesions may in turn require several weeks' treatment. During an earlier period (1919-1928) a primary, local and regional freedom from symptoms could be obtained in only 14 per cent of the cancer cases. From 1929 to 1935 this could be accomplished for 53 per cent of the cases. In the first period 319 patients were treated, in the second 517. Formerly, improvement could be obtained in 31 per cent of the cases; now such results (shrinking or disappearance of the cancer) are obtained in 77 per cent. During the period from 1919 to 1928 the percentage of permanent results was small except for cases in which the seat of the disease was the oral cavity or the inner larynx. For the whole period, "cures" that lasted for three years could be obtained in only 6 per cent of the cases and for five years in 5 per cent. In cancer of the hypopharynx there were no cures lasting as long as three years. Lasting results were more frequent during the second period (1929-1935). In 22 per cent of all the cases in this period there had been no recurrence three years after cure and in 13 per cent there had been no recurrence five years after cure. Early recognition, early diagnosis and early treatment remain of paramount importance.

Chronic Nervous Disorders As a Cause of Death

Professor Isenschmid of Berne has recently published a critical discussion of chronic nervous disorders as a cause of death in Switzerland. The chief source of information was the official mortality statistics, which have for a long time been well compiled in Switzerland. According to the statistics the chronic nervous disorder responsible for the greatest number of deaths in Switzerland was epilepsy (1,260 deaths in the five year period from 1928 to 1932). This was followed by paralysis agitans (623 deaths), dementia paralytica (557 deaths), multiple sclerosis (446 deaths) and finally, but much less frequently, tabes dorsalis (211 deaths).

Mortality statistics provide a clearer picture of the relative incidence of various diseases than can be obtained from computations of living persons affected with the same disorders. Diseases that cause sudden death are likely to be underestimated statistically as opposed to chronic nervous disorders, if the sole basis of comparison is the number of contemporaneous living patients. The mentioned 1,260 fatal cases of epilepsy in a five year period is equivalent to 5.1 per thousand of the total number of deaths occurring within the same period. The corresponding proportions per thousand for other diseases are paralysis agitans 2.5, dementia paralytica 2.27, multiple sclerosis 1.8 and tabes 0.86. The two sexes are about equally represented among persons dying of paralysis agitans. Among patients who succumbed to epilepsy, men preponderated in a ratio of 6 to 5. Among those dying of the two metasyphilitic diseases there was an even greater preponderance of male patients; the ratios were 2 to 1 for tabes and approximately 12 to 5 for paralysis. Women were more frequently victims of multiple sclerosis in the ratio of 17 to 10. The high mortality of epileptic patients between the ages of 20 and 30 was striking; 21 per cent of deaths from epilepsy of men and 12 per cent of the deaths of women occurred during an attack. Attention was called to the low suicide rate in persons affected with chronic nervous disorders. Suicide accounted for only 1.65 per cent of the fatalities covered by the survey, whereas for all Switzerland in recent years about 2.4 per cent of the total deaths have been by suicide.

Exploration with the Gastroscope

At the medical clinic of Basel University, of which Prof. Rudolf Staehelin is director, data on the use of the gastroscope have been assembled and discussed by Dr. Kapp before the Basel Medical Society. Rigid gastroscopes of small caliber cause fewer injuries than those of larger caliber such as were formerly used. The former, however, can be of service in only about 85 per cent of the cases, since under no circumstances can the introduction of the instrument be forced because of the danger of lacerations. Flexible gastroscopes have the advantage that with reasonable care no injuries will be incurred. Their disadvantages are that if the curve exceeds 45 degrees the view will be obstructed, which will also occur if the lamp

is not bright or the window is smeared. The tubes, too, are considerably thicker. Gastroscopy is to be regarded as less indicated in carcinoma or ulcer, which diseases can be usually well diagnosed by other means, than in the various forms of gastritis.

Kapp has also devised an anoscope by means of which it is possible, when a section of the wall of the instrument is removed, to obtain a good view of the lowest intestinal region.

MOSCOW

(From Our Regular Correspondent)

May 25, 1937.

No Smallpox in the Soviet Union

Vaccination was not compulsory in tsarist Russia; every year more than 100,000 persons became infected with smallpox. During the World War and the civil war the number of patients reached thirty in each 10,000 persons. The Soviet government issued in 1919 and 1924 two decrees about compulsory vaccination. Smallpox then gradually diminished; 14,154 smallpox patients were registered throughout the country in 1927 and only 400 in 1936. There were no registered patients in the Soviet Union during January and February 1937. About 40,000,000 persons are vaccinated and revaccinated every year. In middle Asia in 1936 a special investigation was made to find whether any patients were hidden by the population, but no instances of such hiding were found. It is interesting to note that in India, during the period January to September 1936, 203,107 cases of smallpox were registered and in the United States 6,254 cases.

Prostitution in the Soviet Union

In 1913 there were 20,000 registered prostitutes in Moscow. In 1931 only 700 women engaged in prostitution were found in Moscow and in 1932 only 470. The Women's Curative Labor Prophylactorium of Moscow, an establishment for combating prostitution, in August 1936 showed the number of prostitutes to be about 100. The function of the prophylactorium is to help these women to return to normal life. In 1928, says Dr. Mark S. Danishevsky, director of the Moscow Prophylactorium, there were forty prophylactoriums in the Soviet Union. After 1931 four were closed in Moscow and twelve in other parts of the country. Now there are only six in the whole country, quite enough to take care of the few remaining homeless women.

The Soviet state combated prostitution under the slogan "Fight Prostitution, not the Prostitute." The campaign was begun in 1922, by the People's Commissariat of Health, Labor and Trade Union. It prevented prostitution by the following regulations: No enterprise could discharge women employees who were without means of substance, single girls without parents, pregnant women or women with children. Against existing prostitution, measures were taken such as (*a*) special supervision at railroad stations, hotels, workers' dormitories, ports and public bath houses, (*b*) several legal measures against all agents and agencies of prostitution, and (*c*) establishment of free dispensaries for treating venereal diseases.

In 1929 the government issued a decree to hasten the abolition of prostitution. It recommended the training of women for more highly qualified work in industry, encouraged the employment of women in all branches of production, called for intensification of antiprostitution propaganda, and demanded punishment of persons guilty of debauching young girls. In addition, the decree suggested establishing two farms near Moscow for reclaimed women requiring work on the land, explained how the work of the forty prophylactoriums of the country could become more effective, and outlined plans for founding an institute of labor education for prostitutes. With the aim of bringing former prostitutes back to useful socialist labor, the Women's Curative Labor Prophylactorium was established. It was decided first that women must be quite free to enter without any semblance of force. The severest punishment allowed was expulsion. Thus no women entered the prophylactorium other than voluntarily. No funds from private sources were accepted for this purpose. All medical service care and attention to the patients and all medicines had to be free of charge, the state meeting all the costs. Finally a woman was required to remain at the prophylactorium for an average of two years and could be discharged only when the institution had found her a job and a room outside. In the rehabilitation of a street walker, after her disease has been cured in the main prophylactorium, she goes to the affiliate prophylactorium in another locality, where there are factories and shops for women who had worked before. The institutions continue to watch over their pupils for a given period. The Moscow Prophylactorium has sent out about 2,500 women. Thirty-two per cent have been several times rewarded for good work at their place of employment. Seventeen per cent are students in technical schools and institutes. Sixty-five per cent have married and 44 per cent are now mothers.

Expenditure on Public Health in 1937

According to the decision of the Central Executive Committee and the Council of People's Commissars of the Union of Socialist Soviet Republics issued March 29, 1937, concerning the national economic plan of the country for 1937, the total expenditure on public health is fixed at 7,528.1 million rubles, against 5,803.5 million rubles in 1936. Capital investments in public health will be equal to a billion rubles. About 574 million rubles of this sum will be spent on building maternity homes, nurseries and milk kitchens. The remainder will go to building new hospitals, research institutes, sanatoriums and medical schools. The total number of hospital beds in 1937 will be 619,800, as against 564,000 in 1936. At the beginning of the school year a number of medical institutes in Archangel, Gorky, Ijevsk, Ivanovo, Krasnodar and other towns will be greatly enlarged. There will be erected thirty new buildings and six clinics, as well as thirty-nine new schools for middle medical staffs. This year the building will be completed in Moscow of new houses for the Central Health Resort Institute and for the Disinfection Institute. Twenty-five million rubles will be spent for the building of the All Union Institute of Experimental Medicine. New buildings for the tropical institute, traumatologic institutes, Institute of Epidemiology and Microbiology, Institute of Oncology and Institute of Blood Transfusion will also be erected. The number of physicians at the end of the third five year plan will be 176,000, in comparison with 104,000 in the present year.

Marriages

CHARLES ALLEN EASLEY JR., Richmond, Va., to Miss Elizabeth Fitzgerald of Danville, in May.

H. PRESTON PALMER to Miss Helen Theresia Rosen, both of Scott City, Kan., Dec. 25, 1936.

JACOB J. KIRSHNER to Miss Estelle Mildred Varbalow, both of Philadelphia, February 21.

WILLIAM J. BUCK, Belle Glade, Fla., to Miss Sue Florence of Palm Beach, May 22.

JESUS M. QUINONES, Vieques, P. R., to Miss Santin Olmo of Barceloneta, June 3.

CARL A. KUNATH to Miss Rachel Dorothy McDaniel, both of Iowa City, June 5.

ROSCOE M. NEEDLES, Anita, Iowa, to Miss Ida Sabo of Canton, Ohio, May 20.

PAUL L. DEWAELE to Miss Geraldine E. Hartz, both of Detroit, May 5.

JAMES L. CHALKER to Miss Mary C. Fore, both of Ocala, Fla., April 14.

Deaths

Charles Sumner Benedict, New Rochelle, N. Y.; University of Vermont College of Medicine, Burlington, 1882; University of the City of New York Medical Department, 1883; member of the Medical Society of the State of New York; past president of the Westchester County Medical Society; formerly member of the city of New York board of health; aged 80; died, April 15, of carcinoma of the prostate and osteitis deformans.

Thomas Patton Cheesborough, Asheville, N. C.; University of the City of New York Medical Department, 1891; member of the Medical Society of the State of North Carolina; veteran of the Spanish-American and World wars; aged 67; died, April 3, of internal hemorrhage due to ruptured varicosities of the esophagus and cirrhosis of the liver.

Cyrus Fletcher Boyers, Morgantown, W. Va.; Barnes Medical College, St. Louis, 1896; member of the West Virginia State Medical Association; at various times city and county health officer, and member of the city council; aged 63; on the staff of the Monongalia County Hospital, where he died, April 14, of lobar pneumonia.

Frederick Lewis Blair, Providence, R. I.; University of Maryland School of Medicine, Baltimore, 1911; member of the Rhode Island Medical Society; veteran of the Spanish-American and World wars; formerly on the visiting staff of the Homeopathic Hospital; aged 59; died, April 24.

Charles B. Almond, Winder, Ga.; University of Georgia Medical Department, Augusta, 1891; member of the Medical Association of Georgia; for many years a member of the board of education and board of health; aged 66; died, April 16, in the Emory (Ga.) University Hospital.

Elwin H. Ashcraft, Coudersport, Pa.; College of Physicians and Surgeons, Baltimore, 1881; member of the Medical Society of the State of Pennsylvania; for many years a member of the state board of health, county coroner and medical inspector; aged 82; died, April 12.

John Ellis Ashcraft, Fayetteville, N. C.; University of the City of New York Medical Department, New York, 1887; member of the Medical Society of the State of North Carolina; formerly a member of the state board of health; aged 76; died, April 26, of heart disease.

Frank Alsworth Waples, Houston, Texas; University of Michigan Department of Medicine and Surgery, Ann Arbor, 1893; fellow of the American College of Physicians; formerly on the visiting staff of the Southern Pacific Hospital; aged 69; died, March 4.

Francis Van Vechten Wethey ⊕ Enfield, N. H.; University of Vermont College of Medicine, Burlington, 1924; served during the World War; aged 43; died, March 5, in the Mary Hitchcock Memorial Hospital, Hanover, of hypertensive heart disease.

Walter Sidney Swan, Harrisburg, Ill.; Jefferson Medical College of Philadelphia, 1877; member of the Illinois State Medical Society; for many years a member of the board of education; aged 82; died, March 28, of cardiorenal degeneration.

William Ashton Reese, Petersburg, Va.; Medical College of Virginia, Richmond, 1915; member of the Medical Society of Virginia; served during the World War; city physician; on the staff of the Petersburg Hospital; aged 47; died, March 21.

Wily Simeon Adams, Cherokee, Ala.; University of Georgia Medical Department, Augusta, 1908; member of the Medical Association of the State of Alabama; aged 52; died, April 1, in the South Highlands Infirmary, Birmingham.

James M. Williams, Malvern, Ark.; Memphis (Tenn.) Hospital Medical College, 1895; member of the Arkansas Medical Society; past president of the Hot Spring County Medical Society; aged 81; died, March 17, of pneumonia.

Thomas Jay Robeson, Bloomington, Ill.; Northwestern University Medical School, Chicago, 1893; member of the Illinois State Medical Society; veteran of the Spanish-American War; aged 74; died, March 26.

Anna Marie Mosgrove, San Francisco; Cooper Medical College, San Francisco, 1899; member of the Associated Anesthetists of the United States and Canada; aged 85; died, March 26, of coronary occlusion.

Gibson Reynolds, Montgomery, Ala.; Columbia University College of Physicians and Surgeons, New York, 1901; member of the Medical Association of the State of Alabama; aged 60; died, March 13, of heart disease.

Elmer Clinton Bruch, Bethlehem, Pa.; Baltimore Medical College, 1891; Jefferson Medical College of Philadelphia, 1892; aged 67; for many years on the staff of St. Luke's Hospital, where he died, April 16.

Robert Bethune Warren, Deatsville, Ala.; Medical Department of the University of Alabama, Mobile, 1903; aged 64; died, March 17, in the Fitts Hill Hospital, Montgomery, of coronary occlusion.

J. Henry Wishard, Leitersburg, Md.; Jefferson Medical College of Philadelphia, 1883; aged 80; died, March 27, in the Waynesboro (Pa.) Hospital, of cerebral hemorrhage and bronchopneumonia.

Jacob C. Solomon ⊕ Los Angeles; American Medical College, St. Louis, 1893; formerly professor of ear, nose and throat, California Eclectic Medical College; aged 72; died, March 15, of arteriosclerosis.

Henry J. Wolf, New York; Universität Heidelberg Medizinische Fakultät, Baden, Germany, 1884; on the staff of the Lebanon Hospital; aged 75; died, March 22, in the Lenox Hill Hospital.

John Marquiss Blair, Houston, Texas; Rush Medical College, Chicago, 1884; formerly medical director and owner of a sanatorium bearing his name; aged 78; died, April 2, in a local hospital.

Harriet Josephine Cossmann, Stapleton, N. Y.; Johns Hopkins University School of Medicine, Baltimore, 1929; aged 33; died, April 24, in Asheville, N. C., of pulmonary tuberculosis.

Joseph H. Schnurrenberger, Austintown, Ohio; Western Reserve University Medical Department, Cleveland, 1892; for many years a member of the school board; aged 71; died, March 26.

Joseph Henry Akers, Attleboro, Mass.; Dartmouth Medical School, Hanover, N. H., 1884; member of the Rhode Island Medical Society; aged 80; died, April 4, in the Sturdy Memorial Hospital.

Edward Howard, San Diego, Calif.; Harvard University Medical School, Boston, 1887; aged 82; died, March 19 in Santee, of bronchopneumonia, cerebral hemorrhage and arteriosclerosis.

Elizabeth Mattson Clark, New Brunswick, N. J.; Woman's Medical College of Pennsylvania, Philadelphia, 1893; aged 91; died, April 4, of myocarditis and auricular fibrillation.

James Josiath Martin, Long Beach, Calif.; Eclectic Medical Institute, Cincinnati, 1898; member of the California Medical Association; aged 71; died, March 21, of cerebral embolism.

Frederick Henry Charles, Cumberland, Md.; University of Maryland School of Medicine, Baltimore, 1886; aged 75; died, March 19, of arterial hypertension and myocarditis.

Timothy Joseph Sullivan, Newton, Mass.; Harvard University Medical School, Boston, 1902; aged 69; died, March 28, of chronic myocarditis and arteriosclerosis.

Ruel Bidwell Karibe, New York; University of Pennsylvania Department of Medicine, Philadelphia, 1892; served during the World War; aged 66; died, March 30.

Alfred Montreuil, Prince Albert, Sask., Canada; M.B., Laval University Faculty of Medicine, Quebec, Que., 1908, and M.D., 1910; aged 51; died, March 1.

William Otto Winter ⊕ St. Louis; Marion-Sims College of Medicine, St. Louis, 1897; aged 67; died, March 31, in the Lutheran Hospital, of heart disease.

Selwyn Kent Smith, Belize, Honduras, Central America; University of Western Ontario Medical School, London, 1924; aged 37; died, March 7.

William James Hanford, Los Angeles; New York Homeopathic Medical College, 1883; aged 78; died, March 8, of arteriosclerosis.

Clarence Simon Atwood, Deming, N. M.; University of Buffalo School of Medicine, 1935; aged 32; died, April 28, of pneumonia.

Louis A. Bowling, Charleston, W. Va.; Kentucky School of Medicine, Louisville, 1897; aged 76; died, April 17, of pneumonia.

Joseph Vincent Power, Spencer, Tenn.; St. Louis College of Physicians and Surgeons, 1909; aged 64; died, March 8.

Friede Feige Van Dalsem, Huron, S. D. (licensed in South Dakota in 1887); aged 92; died, March 6, of senility.

Francis George Wallbridge, Belleville, Ont., Canada; Trinity Medical College, Toronto, 1892; died, March 4.

Correspondence

FACTORS IN LACK OF COAGULATION IN HEMOPHILIA

To the Editor:—In the May 15 issue of THE JOURNAL there appeared an editorial on the antihemorrhagic factor in foods, in which the following statements were made: "In hemophilia the deficient functioning of the thrombocytes was pointed out earlier by Howell and Cekada, supplementing Howell's earlier theory regarding the rôle of prothrombin in blood clotting. The latter view was supported by recent work of Patek and Taylor."

I believe that this statement is somewhat inaccurate. In 1914 Howell concluded that the prolonged coagulation in hemophilia was due to a subnormal amount of prothrombin. In 1926 Howell and Cekada dismissed this theory and proposed that the clotting abnormality resided in a peculiar stability of the platelets. More recent studies (Patek, A. J., Jr., and Stetson, R. P.: *J. Clin. Investigation* **15**:531 [Sept.] 1936. Patek, A. J., Jr., and Taylor, F. H. L., ibid. **16**:113 [Jan.] 1937) imply that the platelets in hemophilia are normal and, secondly, that the plasma of hemophilia is deficient in a substance present in the noncellular, normal plasma. This clot-accelerating substance is precipitated with the prothrombin complex, but it is not identified as prothrombin. Indeed, studies in progress imply that the two are distinct.

ARTHUR J. PATEK JR., M.D., New York.
Clinical Associate, Research Division for Chronic Disease, Welfare Island, City of New York Department of Hospitals.

CHRONIC ZINC POISONING

To the Editor:—In his recent paper (Chronic Zinc Poisoning, THE JOURNAL, January 30) Dr. du Bray has apparently overlooked the extensive experimental and clinical studies by myself and my associates dealing with the general biologic aspects of zinc. Not only did these investigations include the development of accurate methods for determining zinc in biologic material and its significance, but special attention was paid to the medical history, physical examination and laboratory studies in a group of men exposed for a long period to zinc compounds uncontaminated by frequently associated impurities:

1. Drinker, Philip: Certain Aspects of the Problem of Zinc Toxicity, *J. Indust. Hyg.* **4**: 177-197 (Aug.) 1922.
2. Lutz, R. E.: The Determination of Small Amounts of Zinc in Materials of Organic Nature: A Microchemical Method Based on the Fluorescence of Zinc Salts with Urobilin, *J. Indust. Hyg.* **7**: 273-290 (June) 1925.
3. Thompson, Phebe K.: The Recovery of Small Amounts of Zinc from Biologic Material Ashed by the Incineration Process, *J. Indust. Hyg.* **7**: 358-370 (Aug.) 1925.
4. Drinker, C. K.; Drinker, Philip, and Drinker, Katherine R.: An Effective Method for Conducting Experiments on Dust Inhalation, *J. Indust. Hyg.* **7**: 440-443 (Oct.) 1925.
5. Fairhall, L. T.: The Estimation of Zinc in Biologic Material, *J. Indust. Hyg.* **8**: 165-176 (April) 1926.
6. Lutz, R. E.: The Normal Occurrence of Zinc in Biologic Materials: A Review of the Literature and a Study of the Normal Distribution of Zinc in the Rat, Cat and Man, *J. Indust. Hyg.* **8**: 177-207 (April) 1926.
7. Drinker, Katherine R., and Collier, E. S.: The Significance of Zinc in the Living Organism, *J. Indust. Hyg.* **8**: 257-269 (June) 1926.
8. Drinker, Philip; Thomson, R. M., and Finn, Jane L.: The Effect of Turbulent Air Motion and of Humidity on the Stability of Dust, Fume, and Smoke Clouds, *J. Indust. Hyg.* **8**: 307-313 (July) 1926.
9. Batchelor, R. P.; Fehnel, J. W.; Thomson, R. M., and Drinker, Katherine R.: A Clinical and Laboratory Investigation of the Effect of Metallic Zinc, of Zinc Oxide and of Zinc Sulfide upon the Health of Workmen, *J. Indust. Hyg.* **8**: 322-363 (Aug.) 1926.
10. Fairhall, L. T.: The Nutritive Value of Inorganic Substances: I. A Study of the Normal Zinc Metabolism with Particular Reference to the Calcium Metabolism, *J. Biol. Chem.* **70**: 495-512 (Oct.) 1926.
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12. Sturgis, C. C.; Drinker, Philip, and Thomson, R. M.: Metal Fume Fever: I. Clinical Observations on the Effect of the Experimental Inhalation of Zinc Oxide by Two Apparently Normal Persons, *J. Indust. Hyg.* **9**: 88-97 (March) 1927.
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22. Fairhall, L. T., and Hoyt, L. H.: The Excretion of Zinc in Health and Disease, *J. Clin. Investigation* **7**: 537-541 (Oct.) 1929.
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24. Fairhall, L. T., and Richardson, J. R.: The Nephelometric Analysis of Zinc, *J. Am. Chem. Soc.* **52**: 938-944, 1930.
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The following is a partial summary of the clinical studies:

"Careful and detailed clinical and laboratory studies on twenty-four workmen exposed over periods of time varying from two to thirty-five and one-half years, to the inhalation of varying concentrations of zinc in the form of zinc oxide, zinc sulfide or fine metallic zinc dust (manufactured, in the main, from ores conspicuously low in lead and low in cadmium) have revealed no acute or chronic illnesses ascribable to zinc. The workmen, chosen to represent varying types and degrees of exposure to zinc, proved on the whole a vigorous, healthy lot of men, giving no histories of significant past illnesses and showing only such general physical conditions as one would expect to find in any similar group of men of the same ages, of the same social status, and doing approximately the same amount of physical work in an atmosphere with a moderate amount of dust but with no exposure to zinc. This fact is especially significant, indicating, as it does, that ill health ascribed to zinc, particularly the so-called chronic zinc poisoning often referred to in the literature, is in all probability due to toxic impurities, such as lead, cadmium, arsenic and antimony, which commonly contaminate zinc ores, and not to zinc itself.

"Our study demonstrates that zinc workers absorb and excrete zinc in amounts considerably over the normal, and that they maintain constantly a blood zinc content slightly higher than normal. It is apparent, however, from our investigation that abnormal amounts of zinc may enter and leave the body for years without causing symptoms or evidence, which can be detected clinically or by laboratory examinations, significant of gastro-intestinal, kidney or other damage. The fact should be stressed that the amounts of zinc in the urine and the feces of zinc workers represent increased amounts of a normal urinary constituent, and not the presence of a metal abnormal to living cells and to metabolic processes." [9]

Our subsequent experience with these men has confirmed these conclusions. Metal fume fever (a reaction common after the inhalation of finely divided inorganic and organic compounds, magnesium oxide or threshing dust, for example, occurs with rare exceptions after only initial exposure to zinc oxide. The discomfort of those affected is so slight that it is difficult to persuade them to report for examination and study. There has been no absence from work from such reactions. Contrary to the quoted experiences of Dr. McCord (who dealt with zinc mixtures of admittedly unknown composition), we found the

relative incidence of gastric and duodenal ulcer in the group handling zinc products lower than among those otherwise engaged.

Several features of the case report by Dr. du Bray are noteworthy:

1. The slight hypochromic anemia and basophilia reported were not observed in our series.

2. The subjective improvement of the patient after returning to the country is essentially that which many of us would obtain on vacation.

3. Most surprising was the absence of severe caustic damage to the skin from zinc chloride, well known for its destructive effects when in direct contact with tissue. One would almost as readily expose a workman's skin to silver nitrate or trichloroacetic acid as to zinc chloride.

4. The very sensitive methods for the estimation of zinc in biologic materials have never demonstrated skin absorption of zinc compounds.

CECIL K. DRINKER, M.D., Boston.
Dean and Professor of Physiology, Harvard University School of Public Health.

Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

POSSIBLE ESSENTIAL EPILEPSY AS CAUSE OF DEATH

To the Editor:—Please advise me what diseases might have been responsible for death in the following case: A primipara, aged 25, three months pregnant, suddenly went into a coma and died in about six hours without regaining consciousness. There were no convulsive movements; there was marked frothing at the mouth but no vomiting. There were two previous attacks, ten days and three weeks previously. The first, which had a duration of ten minutes, was characterized by restlessness and confusion. There was no loss of consciousness. In the second one she lost consciousness for fifteen minutes. I was unable to arouse the patient. The extremities were flaccid. The pulse rate was 70. Ronchi were present throughout the chest. The blood pressure was 120 systolic, 80 diastolic. The rectal temperature was 97. There were no burns about the mouth. There was no nystagmus. The pupils were moderately dilated but equal in size. Abdominal examination did not detect masses or muscle spasm. The kidneys were not palpable. All reflexes were gone. Urinalysis was entirely negative (unfortunately, no blood sugar was taken). The autopsy, which was limited to the brain, showed no abnormality (gross examination only) The patient was in good health prior to the present illness. There was no appreciable change in her status during the six hours that she lived. Please omit name.

M.D., New York.

ANSWER.—From the evidence presented it is impossible to be certain as to the cause of death in the case described. If one omits suicidal poisoning, of which there is no direct indication, the most likely of several possible causes would seem to be essential epilepsy.

The fact that the patient was pregnant immediately suggests eclampsia, but this disease is improbable for several reasons. Eclampsia is rare before the sixth month of gestation; this woman had been pregnant only nine weeks when her symptoms first appeared. The arterial pressure was normal; there was no albumin, blood or casts in the urine. Edema, hyperemia, thrombosis and hemorrhage, often found in eclamptic brains, were apparently absent. However, the lack of more complete anatomic evidence prevents absolute exclusion of eclampsia gravidarum as the cause of this death. And in the absence of examination of the blood, hypoglycemia cannot be excluded as a possible cause.

Heart block of sufficient grade to kill is unlikely in the presence of a pulse rate of 70 per minute (one assumes it was regular) and a normal blood pressure. The same can be said for the rarer and more bizarre disturbances of cardiac mechanism; for example, recurrent ventricular fibrillation. Frothing at the mouth and rhonchi throughout the chest mean pulmonary edema. While this might be of cardiac origin, it is also characteristic of convulsive states in general, including epilepsy.

Essential epilepsy beginning at 25 years of age is by no means rare. Coma, dilated pupils, absent reflexes, flaccid limbs, all are part of the epileptic fit. As a cause of death it has been described frequently. Information obtained from more or less complete postmortems in such cases is commonly meager. However, hyperemia of the brain is regularly present and often has been marked.

It seems, therefore, that although a positive diagnosis of essential epilepsy is not permissible there is more evidence in favor of it than of any other condition that readily comes to mind.

FUNCTIONAL VASOSPASTIC VASCULAR DISTURBANCE

To the Editor:—I will appreciate greatly any information or suggestion that you can give me regarding the etiology, the diagnosis or especially the treatment in a case in which the hands and feet are always cold and sweating. The patient is a woman, aged 22, about 5 feet 9 inches (175 cm.) tall and vigorous in appearance. She is a college student and engages in school athletics very successfully. There is no inactivity of the bowels and no menstrual irregularity or pain. She weighs 159 pounds (72 Kg.) and has never weighed more. Physical examination is negative except for a chronic infection of the tonsils of which the patient has been unaware. Much pus can be expressed from the tonsils. The blood pressure is 125 systolic and from 10 to 20 diastolic. Evidently there is a marked vasomotor abnormality. Is it likely that there is a glandular factor in the etiology? Would tonsillectomy promise anything of relief from the complaint. Please omit name.

M.D., Washington.

ANSWER.—The condition described belongs to that indefinite class of vasospastic vascular disturbances probably functional in origin. There is no definite etiology. In some cases focal infection may play a part, in other cases some form of neurosis. One might consider Raynaud's disease and acrocyanosis, although there are no symptoms characteristic of these in this report. Hypothyroidism or hyperthyroidism might be looked for. One might look for a cause for the high pulse pressure. It is suggestive of aortic disease at the age of the patient, although the physical examination is described as negative.

It would be advisable to test for peripheral vascular permeability with injections of histamine to rule out actual obstruction. In the absence of any positive observations, mecholyl in 200 mg. doses two to three times daily might be tried. Occasionally abdominal cramps follows its use. In some patients good results have been obtained with injections of pancreatic tissue extract. It comes in ampules. Physical therapy in the forms of massage, active and passive exercise, exposure to a therapeutic lamp or the passive vascular exercise variable pressure cabinet may be tried. In cool weather, woolen gloves and woolen stockings may be required if the sensation of cold is disagreeable.

STERILITY

To the Editor:—A man, aged 30, and wife aged 31, complain of sterility. The past history is irrelevant. Habits and sexual experiences are normal during three years of married life, except for frigidity on the part of the wife. Physical examination of the wife revealed hyperthyroidism, which was corrected. Physical examination of the husband revealed no pathologic changes. Laboratory examinations gave negative results. Analysis of the semen revealed a volume of 4 cc., appearance and viscosity normal, and *p*H 8.2. The motility after four hours was excellent, after twelve hours very good, after thirty-six hours from 12 to 15 motile spermatozoa per high power field. The count per cubic centimeter was 80,000,000, total for ejaculate 320,000,000, and 90 per cent were morphologically normal. In spite of repeated semen analysis, postcoitus specimens revealed no motile spermatozoa. Please omit name.

M.D., North Carolina.

ANSWER.—Undoubtedly something in the vagina destroys the motility of the spermatozoa. There are two possibilities. Either the vaginal secretion or the cervical contents are inimical to the spermatozoa. Spermatozoa survive best in an alkaline medium. The endocervical contents are practically always alkaline and hence are not hostile to the spermatozoa. On the other hand, the vaginal secretion is normally acid and if there is an excessive acidity the spermatozoa may not retain their motility very long. This is especially true if for some reason the spermatozoa are not deposited on the cervix during the ejaculation. Normally vaginal acidity plays no part at all, provided spermatozoa reach the cervix promptly. If, however, the cervix is not readily accessible to the spermatozoa, as for example in cases of anteflexion, anteversion, elongation or prolapse of the cervix, these abnormalities may have to be corrected. Nevertheless a simple procedure to carry out first is to have the patient take a prolonged alkaline douche each time just before coitus is to take place. This may diminish the acidity of the vagina sufficiently to permit the spermatozoa to reach the cervical canal. If alkaline douches do not help overcome the sterility in this case, it is best to inseminate the spermatozoa directly into the uterus. This is a simple pro-

cedure but it must be carried out under as aseptic precautions as possible. The semen should be brought as soon after ejaculation as possible in a clean cold cream jar which has previously been boiled and kept clean. It is best to inseminate sperm every second day from the tenth to the eighteenth day of the menstrual cycle. Only a few drops should be inserted into the uterine cavity just beyond the internal os through a uterine cannula.

POSSIBLE CHRONIC PANCREATITIS

To the Editor:—A woman, aged 57, complains of distress in the abdomen following the taking of food, hot flashes, weakness, loss of weight and strength, and spells of nausea and vomiting. Her trouble first started with the hot flashes when she stopped menstruating about ten years ago. These have persisted, coming regularly about every day and night since then, having moderated somewhat in the last two or three years. During the summer she wakes up practically every time she has one of these, but during the winter she usually sleeps rather well. She has been given theelin (estrone) in large dosages with no effect. Her other symptoms are of relatively recent onset. About a year ago she began having distress off and on following her meals. This has progressed until at the present time she has distress following almost every meal but seemingly worse in the evening. This distress seems to be gas in the large bowel and does not seem to be associated with any particular type of food. She has found nothing that will give relief. She has become weak and tired and worn out in the past six months, possibly because she has eaten so little. She lives on a farm and used to do considerable outside work as well as housework; now she cannot do even her housework. She has lost approximately 30 pounds (13.6 Kg.) in the last eight months. On several occasions in the past six months she has had spells of extreme nausea, vomiting and diarrhea, and on at least three occasions following the vomiting and diarrhea has been unconscious. The worst spell happened about two months ago. About two hours after a light evening meal she started vomiting and in about three hours became unconscious and was unconscious for more than forty-five minutes. She had some diarrhea and the vomiting continued until noon the next day. Following this episode she was in bed for about two weeks. She had no fever and no tenderness or pain in the abdomen. At times she has an extreme nausea and feels as if she would have vomiting and diarrhea but doesn't. Sometimes these spells of nausea last from eighteen to twenty-four hours. Always after these spells she is weak and has to stay in bed. Her bowels have been very regular; there has not been constipation. The gallbladder was removed in 1932 following four or five years of rather typical symptoms of cholecystitis. Following this she was unusually well for three years. As a girl she remembers having had numerous spells of diarrhea. Her father died at the age of 74 and her mother at the age of 75, both of carcinoma of the stomach. One sister has a multiple diverticulitis, for which it was necessary to do a colostomy several years ago. One sister has had her gallbladder removed. Two brothers have had peptic ulcers. Several other brothers and sisters have various indefinite gastro-intestinal symptoms. The patient appears tired; the skin has a somewhat darker appearance than it used to, although this is not noticeable to any one who did not know her previously. Her skin seems somewhat dry. General physical examination is negative, the heart is normal, the blood pressure 125 systolic and 80 diastolic on repeated readings. The abdomen is normal except for some slight tenderness over the colon. The generative organs appear to be normal. The red blood cells number 4,500,000, hemoglobin is 92 per cent and the white blood cells number 5,750, with 78 per cent polymorphonuclears and 21 per cent lymphocytes. The urine is normal on repeated examinations. The stools are negative for blood on repeated examinations. A basal metabolism test gave a reading of plus 25 but the technician felt that this reading was not correct as the patient was nervous and restless all during the time it was being done. It was repeated the next morning with a reading of minus 20. The blood sugar one morning was found to be 38 mg. per hundred cubic centimeters, on another morning 43 mg. Following this a dextrose tolerance test was done with the following readings: fasting blood sugar 38 mg., one-half hour 50 mg., one hour 143 mg., two hours 79 mg., three hours 77 mg., four hours 75 mg., five hours 43 mg., six hours 60 mg. The blood nonprotein nitrogen was normal. X-ray examinations of the stomach gave normal results. A colon series showed considerable spasticity of the ascending and transverse colon, with loss of haustration of the descending colon. She was seen by two competent internists, who could not agree on the diagnosis. One felt that probably the condition was endocrine imbalance with possibly some hyperinsulinism. The other felt that most of the symptoms could be explained on the basis of colitis and that the low blood sugar readings were simply due to the low food intake. She was placed on a smooth diet relatively high in fats and low in carbohydrates with frequent feedings. She was given belladonna and phenobarbital before meals and placed at rest. She has been on this treatment for about three weeks and has made some progress but not as much as was hoped for. She still has distress, although not as marked and not every day. She has had two spells of nausea, which were of relatively short duration. She has not regained any strength although she has been taking much more food than previously and she also continues to lose weight. Any suggestions you might have as to diagnosis or treatment would be greatly appreciated. Please omit name.

M.D., Iowa.

ANSWER.—The gastro-intestinal symptoms would fit in with disease of the pancreas—possibly chronic pancreatitis. Colonic irritability, manifested by abdominal distress, cramps, nausea or vomiting, with or without diarrhea, is frequently associated with disease of the pancreas. The recurring attacks of unconsciousness, the low blood sugar readings, especially at the five and six hour periods, and the fasting low blood sugar are certainly sufficiently characteristic to suggest the diagnosis of hyperinsulinism. It is hardly probable that disease of the adrenals with hypoglycemic reactions need to be considered because of the normal pressure and the absence of other symptoms.

The history of gallbladder inflammation followed by a cholecystectomy even though followed by three years of well being, does not of necessity rule out the possibility of pancreatitis. The subsequent development of hypoglycemic reactions of pancreatic origin creates a complicated picture which theoretically might be explained in one of two ways. There may be two distinct processes, although related, a pancreatic neoplasm which may compress the pancreatic duct distal to the ampulla and thereby lead to acinous atrophy and islet hypertrophy. The latter may cause hyperinsulinism. Or she may have a small islet tumor causing hyperinsulinism. The diet consists of a relatively low carbohydrate content in the form of 5 to 10 per cent vegetables and fruits, fruit juices, and a high fat diet.

Seale Harris recommends in cases of loss in weight from 2 to 4 ounces of ice cream every three hours while awake. Harris further states in his most recent article on hyperinsulism (*Ann. Int. Med.* **10**:514 [Oct.] 1926) that, if the patient does not respond to this regimen, exploration of the pancreas for an adenoma is advisable. Insulin has been used by some. Reference to the article mentioned will yield information as to the various medicaments used and the rationale of their use.

PHLEBITIS WITH SWELLING OF LEG

To the Editor:—A man, aged 78, has considerable edema of the right leg, extending well above the knee, and it is becoming increasingly hard for him to have shoes fitted. Elastic stocking when put on in the morning, at a time when the edema is somewhat less, causes almost painful swelling over the knee and in the thigh. Otherwise apparently there is but little discomfort from it. There are a number of thin walled tortuous varicosities in the skin, but no other veins are visible. Because of the thinness of the walls of these blood vessels, which are close under the epidermis, the injection treatment of the varicosities, which had begun with hopes of giving some relief, were discontinued. The patient also has polyps of the rectum and bilateral hydroceles. The left leg is entirely normal. The present edema of the right leg began five years ago. Urine examination is negative. The heart condition is not remarkable. He has had extrasystoles for three years. The blood pressure is 120 systolic, 80 diastolic. He has been put on 1 cat unit of digitalis daily for several weeks, without any improvement. Could you advise me as to cause and treatment? Would ligation of the saphenous vein help? Please omit name.

M.D., California.

ANSWER.—There has probably been a phlebitis involving the deeper veins with consequent thrombosis and obliteration. Possible intrapelvic obstruction must be ruled out. The condition is best left alone as far as surgery or injections are concerned. A well fitting elastic stocking could be tried, but it must not interfere too much with the return circulation through the superficial veins. There is no reason for the digitalis and it is best omitted. It is a mechanical condition which can be alleviated but not permanently remedied and does not call for the administration of any diuretic drug. Digitalis is not a diuretic per se.

ONION TASTE TO MILK

To the Editor:—I am interested in the experiments related in THE JOURNAL, January 9, on page 136, "That Garlic Odor." In the last paragraph it is stated that "30 Gm. of raw domestic onion can be swallowed in capsules and no odor detected on the breath." How can the onion taste to milk be explained when the cows eat onion grass? I know for a fact that the students of a college in Virginia could not drink the milk served because of a strong onion taste.

LYMAN WEEKS CROSSMAN, M.D., New York.

ANSWER.—The observation that milk from cows eating onion grass has an onion taste is undoubtedly correct. The probable explanation is that a sufficient amount of volatile oil from the ingested grass has reached the blood to allow its excretion by the mammary gland. Many substances are excreted into the milk, including numerous drugs, salts, anesthetics, metals, volatile oils and lipid-soluble substances. Cows fed large amounts of cod liver oil may produce milk that tastes and smells of the fish oil. It is common knowledge that fat-soluble pigments and carotenoids from plants enter the milk and give the yellow color to butter. Every dairy farmer is aware that the diet of the cows affects the color, odor and taste of the milk. Human milk likewise may contain the odor of alliaceous oils present in the mother's food. Whether or not it does so depends mainly on the amount of substance ingested.

Again, the cow consumes large quantities of these greens. Also, onions vary considerably in their content of allyl-propyl disulfide, and the wild vegetable may contain a higher percentage of volatile oil than the domesticated form. As this oil

is lipid soluble, the higher fat content of cow's milk as compared to human milk may be an additional factor in the presence of onion odors.

The experiments referred to in the inquiry were merely quoted by Goodman and Bearg in their communication to THE JOURNAL. If it should be found to be generally true that 30 Gm. of raw domestic onion can be swallowed in capsules without affecting the odor of the breath, this might mean only that this amount is insufficient.

ANGINAL PAIN IN HEART DISEASE

To the Editor:—I would appreciate some information regarding certain cases showing symptoms of angina pectoris. There is perhaps an initial attack of mild anginal pain relieved by rest in bed from which the patient is free for several months, but with increasing dyspnea on effort until there is a recurrence, at first slight and transient and coming on several hours apart gradually increasing in severity, length and frequency until a doctor is called. When the patient is first seen the attacks will last about five minutes and be that far apart, the pulse but little accelerated, the heart tones normal in character and location. Two ampules of amyl nitrite will give no relief and if 1/100 grain (0.00065 Gm.) of glyceryl trinitrate is given by mouth the patient may be made uncomfortable, restless and apprehensive. The pulse may jump to 120. There is not the classic ghastly pallor, the eyes staring with terror and anxiety, the bodily rigidity. The patient may bend forward in bed, the arms slowly writhing with tense muscles, the face suffused, the eyes tightly closed with a frown and the patient uttering a low moan. The pain is viselike beneath the left border of the sternum, radiates to the left shoulder and down the arm to the hand, and will take perhaps more than a grain (0.065 Gm.) of morphine to control, in one who is in no way addicted to the use of opiates. Urinalysis will show a marked transient glycosuria. With absolute rest in bed there will be no repetition of the attack. What has probably happened and what is the prognosis?

H. A. HASKELL, M.D., Windsor, Calif.

ANSWER.—The question is not quite clear. If the symptoms mentioned occurred in chronological order in a patient who was under observation, a fairly reasonable explanation may be offered. With this assumption it is probable that the patient suffered for a time with anginal pain, the angina of effort. It is assumed that this type of pain is due to a general reduction of the coronary circulation due to anatomic changes in the coronary vessels, and the discomfort is usually quite amenable to rest in bed and to reduced activity. The increasing dyspnea on effort would indicate that the myocardial failure due to the impaired coronary circulation was constantly progressing. Then, after several months of this, the patient had an acute coronary occlusion. The relatively slow onset of the occlusive symptoms may be explained by the assumption of a slowly spreading thrombosis, so that several hours may be consumed in reaching the height of myocardial infarction. The pain of coronary occlusion is not relieved by vasodilators and the inhalation of amyl nitrite plus glyceryl trinitrate beneath the tongue would be likely to add to the discomfort in such a situation. Repetition of this attack would not be likely to occur unless there was additional thrombosis. Indeed, previously existing anginal pain has been known to disappear following a frank coronary occlusion.

The prognosis is distinctly unfavorable in general but must be based on the individual case.

ALCOHOL IN URINE

To the Editor:—If the urine in the bladder contains 0.18 per cent alcohol at necropsy, would that be presumptive of acute alcoholic intoxication? Can you refer me to any authority on the subject of alcoholic contents of viscera and body fluids at postmortem?

HOWARD K. SHROM, M.D., Detroit.

ANSWER.—Assuming that the analysis indicates 0.18 per cent by weight in the urine and that the individual did not die within thirty minutes after beginning drinking, it is apparent that the individual was but moderately under the influence of alcohol at the time of death. This percentage is usually associated with definite psychologic inferiority and with but slight impairment of muscular coordination. Furthermore, this amount of alcohol could not be considered as a cause of death, since death from alcohol rarely occurs until body fluids contain more than 0.6 per cent. If we consider the more remote possibility of death occurring within thirty minutes after starting drinking, there would have been insufficient time for the distribution of alcohol, and the urine would have contained much less than the blood. For this reason, examination of the blood is an important adjunct when the time factor is unknown.

About one hour after drinking, alcohol becomes fairly uniformly distributed in the water of the body and it is evident that a man weighing 150 pounds (68 Kg.) having 0.18 per cent in his urine must have consumed at least 150 × ⅔ (fraction of water in body) × 0.18 per cent = 0.18 (pounds of alcohol in body); = 2.9 (ounces of alcohol by weight; = 3.6 (ounces of alcohol by volume, alcohol having a specific gravity of 0.8).

The distribution of alcohol in various tissues of the body has been discussed by:

Nicloux, M.: *Compt. rend. Soc. de biol.* **51**: 980, 1899; **107**: 997, 1931.
Southgate, H. W., and Carter, G.: *Brit. M. J.* **1**: 463 (March 13) 1926.
Bogen, Emil: *California & West. Med.* **26**: 778 (June) 1927.
McNally, W. D., and Embree, H. C.: Alcohol in the Human Body, *Arch. Path.* **5**: 607 (April) 1928.
Mellanby, Edward: *Brit. J. Inch.* **17**: 157, 1920.
Harger, R. N.: *J. Lab. & Clin. Med.* **20**: 746 (April) 1935.

An excellent collection of papers on this subject can be obtained from the Package Library of the American Medical Association.

INTERMITTENT CLAUDICATION

To the Editor:—What can one do in the treatment of intermittent claudication? A man, aged 78, began to find about four years ago that on walking one or two blocks he experienced an agonizing ache in or about the right hip joint, which he at first feared might be due to eburnation of the head of the bone or the acetabulum but learned in the course of the succeeding three or four years that more than the joint surfaces was involved. At length the pain extended to surrounding structures and did not always originate in the joint itself but up above and behind the joint, affecting the lower portion of the gluteus maximus muscle and in time (two or more years) began to be accompanied by numbness, which extended to and involved the outer three fourths of the foot on that side. The inferior half of the gluteus maximus would become quite numb at these times. Sitting down for ten or twelve minutes would see it depart, leaving no trace, to return again under similar conditons. Latterly it has begun to affect the left side also, and for about four nights it has invaded the left leg and foot some time after he retires, at which times the numbness appears to be accompanied by an agonizing ache, which may be in one of several situations but is usually in the front part of the leg about 4 inches above the ankle joint. Walking, however, causes the aching and numbness to reappear in the calves and in the thighs—it does not appear to be so much localized as it was earlier. After ten or twelve minutes' rest it disappears entirely until walking is indulged in again, or until he retires to bed. After a round of this kind, if he rises and walks about for ten or twelve minutes he can lie down and sleep soundly. He has a fair appetite and in other respects feels as well as usual. A while back he had some trouble (annoyance) with extrasystoles, but these disappeared on taking pepsin and hydrochloric acid after meals for a week or two. He has no shortness of breath on exercise; he can lift as heavy a load as ever. He has to rise once, about 4 a. m., to urinate. In my library (of about 500 volumes) only one writer gives anything that one could call a description, but only indefinite suggestions for treatment. This is Nascher, Geriatrics. Is there a treatment? Is the disease amenable to any treatment? What is the pathology and the cause? I omitted to state that in the limb in which the manifestations appear there is a lowered temperature. MILLARD F. CUPP, M.D., Clarksburg, Ind.

ANSWER.—Intermittent claudication is a symptom of arterial insufficiency which is produced by disease of the arteries to the extremities, either inflammatory in nature, that is, thromboangiitis obliterans, or degenerative in nature, that is, arteriosclerosis obliterans. It is characteristically produced by exercise and relieved by rest. It does not occur while the patient is at rest, nor does it occur while the patient is standing. It is quite probable, therefore, that the patient whose symptoms are described does not have intermittent claudication. This would be a certainty if pulsations in the arteries to the extremities were found to be normal and if there were no abnormal pallor of the feet on elevation of them or abnormal rubor when they were dependent, as these signs are manifestations of occlusive arterial disease. Since the patient has pain while at rest and numbness of a portion of the foot indicative of nerve involvement, it appears that the process responsible for the symptoms is more probably in the structures in the spine, pelvis, hip joint or upper part of the femur. These areas should be examined carefully and roentgenograms made. In a person of the age of the patient whose symptoms are described, one should suspect metastatic involvement of the bone.

The treatment of intermittent claudication is not entirely satisfactory, but the distance which patients with intermittent claudication can walk is ordinarily increased considerably by the administration of tissue extract (Barker, N. W.; Brown, G. E., and Roth, Grace M.: *Am. J. M. Sc.* **189**:36 [Jan.] 1935). If the patient has an occlusive arterial disease, it is advisable to attempt to increase the circulation to the extremity with the method described by Brown (*Surg., Gynec. & Obst.* **58**:297 [Feb. 15] 1934) with the exception that sympathectomy and the intravenous injection of typhoid vaccine are not ordinarily advisable in older persons whose occlusive lesion is due to arteriosclerosis. Intermittent pressure and suction may be of value (Allen, E. V., and Brown, G. E.: Intermittent Pressure and Suction, THE JOURNAL, Dec. 21, 1935, p. 2029).

ALLERGIC DERMATITIS

To the Editor:—A boy in apparently good health has a widespread papulosquamous eczema. The areas involved are the forehead, angles of the jaw, anterior part of the chest, flexor surface of the forearms, the creases at the knee and elbow, and the outer portion of the legs. On the leg, where the child rubs them on the bed and chairs, the lesions are moist and weeping; otherwise the lesions are dry, slightly elevated and scaly. The child was premature (thirty-four weeks) and weighed 4 pounds 12 ounces (2,155 Gm.) at birth. For two weeks the child was fed on breast milk and, as the supply failed, was put on evaporated milk and karo, with small doses of thyroid, halibut liver oil and viosterol and orange juice. He was given cereal (pablum) at 4 months, vegetables (Heinz) at 5 months and egg yolk at 6 months. At present he is 9 months old, weighs 22½ pounds (10 Kg.), is 29 inches (74 cm.) in height, has six teeth, sits up alone, and in general shows a normal mental and physical development. The present diet is 24 ounces of whole milk, 8 ounces of water and 3 tablespoonfuls of karo, cereal (1 tablespoonful of pablum), vegetables (3 teaspoonfuls of strained carrot and 3 teaspoonfuls of some strained green vegetable), fruit (3 teaspoonfuls of strained fruit, as prune or apricot or apple). He also gets the juice of one orange and ten drops of halibut liver oil with viosterol. When the child came home from the hospital he had several small areas of rough skin on the forehead and legs. Since then the condition has grown steadily worse. Every article of diet has been omitted for at least ten days, with no change except that I noted that with egg yolk there was a definite aggravation and it has been since omitted. The soap has been changed, as also the brand of halibut liver oil and viosterol, and the type of oil used on the skin. Whole milk has been substituted for the evaporated milk. All aluminum cooking pans have been eliminated. There are no other allergic symptoms in the child. He has had no head colds. After vaccination and diphtheria immunization there was no reaction. The child's great grandfather (paternal) had hay fever, the maternal grandfather had asthma, and a great aunt is sensitive to strawberries. Locally I have used calamine lotion, boric acid ointment, graphite ointment and rosewater ointment. As this is my own son, I am of course certain of all the facts stated as to diet and history.

M.D., Rhode Island.

ANSWER.—This is probably atopic dermatitis; that is, dermatitis caused by sensitization to food or possibly to environmental allergens. It would be well to do scratch tests with all the foods the baby is eating and with the environmental allergens, such as silk, kapok and feathers. If the scratch test to milk is negative, an intracutaneous test with milk should be done, as this is often positive when the scratch test is negative. The diet should then be regulated in accordance with the skin tests, and feathers and dust should be removed so far as possible from the environment, no matter what the skin tests show. If skin tests are not done, the following diet, planned in accordance with the food sensitivities that most of these babies show, may do some good: one of the proprietary milk free foods (cemac, sobee and the like); oatmeal or cornmeal; string beans, carrots and bananas; cevitamic acid tablets, and halibut liver oil with viosterol.

It is difficult to prescribe local treatment without seeing the child, but the following prescriptions usually work well.

For the face:

Crude coal tar	8 Gm.
Zinc oxide	16 Gm.
Starch	32 Gm.
Petrolatum ad	4 ounces (125 Gm.)

For the arms and legs:

Salicylic acid	2.6 Gm.
Mercurochrome crystals	1.3 Gm.
Aquae, q. s.	
Hydrous wool fat	
Petrolatum āā ad	2 ounces (62 Gm.)

LACTIC ACID MILK AND INTESTINAL FERMENTATION

To the Editor:—What is the difference between lactic acid milk, acidophilus milk, sour milk and buttermilk (sweet and sour)? Can pasteurized milk sour, or does it putrefy? When one wishes to change the intestinal flora of a patient with intestinal fermentation accompanied by discomfort and distention of the abdomen, and lactic acid milk cannot be obtained for treatment, will buttermilk or sour milk serve the same purpose? Will milk acidified with lactic acid change the flora as well as a culture of the lactic acid bacillus?

M.D., Pennsylvania.

ANSWER.—Lactic acid milk is cow's milk (fresh or pasteurized) to which lactic acid has been added in the proportion of from 3 to 3.5 cc. to 100 cc. of milk. Acidophilus milk is sterilized milk which has been fermented by a pure culture of Bacillus acidophilus. Buttermilk, with varying degrees of acidity, is a product of indefinite composition produced by the "souring" action of Streptococcus lactis and Bacillus bulgaricus. Lactic acid milk is so easily prepared, it should be available for use as desired in treating the condition described. Change of the intestinal flora to a predominantly aciduric type requires the ingestion of large amounts of living Bacillus acidophilus and the feeding of at least 100 Gm. of lactose or dextrin daily. A preparation of acidophilus milk supplemented with lactose or dextrin is the most effective means of producing this transformation of the intestinal flora.

As the term intestinal fermentation is vague, a direct answer to the question of treatment cannot be given. Buttermilk or sour milk might cause either an increase or a decrease of intestinal gas. Transformation of the flora by these agents is uncertain.

Further information is given in the article on "Lactic Acid-Producing Organisms and Preparations" in New and Nonofficial Remedies, 1937, page 274.

DUODENAL ULCER AFTER BURNS

To the Editor:—I treated a man seven years ago for an extensive burn over the chest and abdomen. The damaged area must have involved at least one third of the surface of the body. Since his accident he has had quite a bit of digestive trouble, which is probably a duodenal ulcer. About a week ago he had a hemorrhage from his stomach and duodenum. Can you give me an estimate of the percentage of burn cases in which duodenal complications develop? The patient may carry his case to court for disability and I should like to have some authoritative information with regard to the case.

M.D., Georgia.

ANSWER.—There is considerable difference of opinion regarding the frequency with which burns are complicated by duodenal ulceration. One author states that of all fatal burns 6.2 per cent are complicated by ulcer formation. In one series of sixty-eight patients, two had duodenal ulcers. In another series of 248 burned persons, the complication occurred only once. Because the development of the ulcer during the course of the burn is not accompanied by the symptoms so characteristic of the lesion as it is usually observed, its presence in the acute stages is often not suspected. Hemorrhage is usually the first symptom of duodenal ulceration occurring during the acute stage of a burn. Acute perforation may be the first evidence of its presence. While duodenal ulceration is not a common complication in burns, it occurs with sufficient frequency to justify the conclusion that there is a definite relationship between the two conditions. There is some experimental evidence to support this clinical observation.

DIAGNOSIS OF SYPHILIS

To the Editor:—I have under my care a man, aged 39, weighing 172 pounds (78 Kg.), who came to me Feb. 28, 1936, with a lesion on the left side of the corona, which, the laboratory reported, showed large numbers of Spirochaeta pallida. The man had infected his wife before he came under my observation and I have had the two under my care since then, both taking active treatment. I have used the continuous plan of treatment as recommended by the U. S. Public Health Service. In all the husband has had twenty-two injections of 0.6 Gm. of neoarsphenamine and twenty-six injections of a bismuth compound in the gluteal region. By March 16 his original lesion was entirely healed. October 17 he had an illicit intercourse and on November 24 another one with the same partner. During these dates he was taking intramuscular injections of the bismuth compound. November 25 he noticed a slight red spot on the right side of the corona and by November 28 this was an open lesion. December 5 I sent him to the laboratory again and the laboratory reported spirochetes in this lesion. Since the patient has had no intermission in treatment and since the second lesion does not occur in the same lymphatic drainage area as the first lesion, I am at a loss to account for it. The question that I hope you can help me to decide is "Is this a recurrence on the opposite side of the corona which I am unable to find any account of in the textbooks, or must I regard it as a new infection which has occurred in spite of his continuous treatment?" I am unable to obtain an examination of this partner who might have infected him. His wife has pursued a perfectly normal syphilitic course. Please omit name.

M.D., Kansas.

ANSWER.—The data furnished unfortunately are not sufficient to allow an unequivocal answer. No mention is made as to whether the Wassermann reaction was positive before treatment or what happened to it after treatment was started.

True there is a possibility that this patient is suffering from a reinfection. However, it is well known that infectious monorelapses are prone to occur on the genitalia, and while this is on a different area and in an area that has a different supply of draining lymphatics than the first lesion, there is no reason why this could not be a monorelapse. The fact that we have no information with regard to the Wassermann reactions naturally makes it difficult for us to more than simply mention the possibilities that this is either a monorelapse or a reinfection.

True reinfections in syphilis are exceedingly rare, and under the circumstances we would be inclined to put this down as an acute infectious monorelapse and would recommend that the correspondent start him in on treatment the same as one would a fresh case of syphilis, using the continuous therapy in courses of neoarsphenamine followed by courses of a bismuth compound.

Moreover, no mention is made of lumbar puncture and the condition found in the spinal fluid. This, of course, should be done at once. It might assist a great deal in revealing whether

the patient does not already have an involvement of the central nervous system, which would, of course, immediately rule out the possibility of reinfection.

TULAREMIA OR SPOROTRICHOSIS?

To the Editor:—A veterinarian, aged 57, employed by the state of California and working on meat inspection, consulted me Dec. 8, 1936, for multiple nodular enlargement, apparently lying along the lymph channels of the left arm. He had consulted me Jan. 29, 1936, for slight laceration of the second finger of the left hand. This injury showed definite evidence of infection at that time with lymphadenitis noted in the region of the left elbow. Supportive treatment was given and the wound healed without further complication. The present history of the glandular enlargement is not definitely known but the patient first noted these nodules about four months previous to December 8. The nodules are slightly flattened, soft in texture, and freely movable under the skin. There is no discoloration of the skin over these swellings. There is no tenderness and no evidence of fluctuation. They are about half the size of a butter bean, some being smaller. They extend from the middle of the palm of the hand to the axilla. One or two are noticed in the axillary space. December 8 a blood Wassermann test was reported negative. A complete blood count was essentially negative. A biopsy was suggested in this case, but owing to the possibility of a fungal infection it was considered that it might cause a breaking down of the patient's resistance to the infection and produce a sloughing ulcer. The patient's health has been very good and there has been no evidence of a break in the skin of recent origin. Could you suggest any diagnostic measure other than a biopsy in arriving at a diagnosis?

H. R. MCMEEKIN, M.D., Lynwood, Calif.

ANSWER.—If the veterinarian had direct contact with wild rabbits, squirrels, sheep, woodchucks, opossums, muskrats, coyotes or certain game birds just prior to the onset of the nodular lymphangitis and axillary adenopathy, the possibility of tularemia should be investigated. The agglutination test for tularemia remains positive indefinitely, although the titer is usually lower (from 1:40 to 1:160) after the lapse of several months from the onset of the disease. A second possibility is sporotrichosis, an infectious, parasitic disease caused by a fungus (Sporotrichum schencki). This disease is characterized by multiple painless circumscribed nodules and abscesses in the skin and subcutaneous tissues, particularly along the lymphatic channels of the extremities. It occurs also in the horse and other animals. Scrapings may be examined directly for the presence of mycelia and cultures made on appropriate mediums. Internal and external iodine therapy appears to be the treatment of choice for sporotrichosis.

Other possibilities are tuberculosis, syphilis and neoplasm. If thorough clinical and pathologic examinations do not provide adequate evidence, biopsy should probably be done. Cultural studies and animal inoculations should be carried out in addition to the microscopic studies of such biopsy material.

DIET LIST FOR ULCER

To the Editor:—Please give me a complete diet list suitable for duodenal ulcer in the interval between attacks and especially after the six month and one year periods. Also please mention lists of foods not allowed. The standard textbooks stress the diet during and immediately after attacks but indicate in only a general way the after-management. It has been my observation that the symptom-free patient will sooner or later discard all dietetic regulation unless given a comprehensive and varied list. Please omit name.

M.D., Pennsylvania.

ANSWER.—A patient disabled with a duodenal ulcer, in a quiescent period, should be allowed the following diet:

Meats: Lamb chop, chicken or lamb.

Vegetables: All kinds, thoroughly cooked except shredded lettuce and raw tomato.

Fruits: All kinds, either raw or cooked, except berries with seeds.

Eggs: In any way except fried.

Fish: Fresh water fish, broiled or boiled.

Soups: Cream soups of all kinds, but no meat soups or meat to be used in the soups.

Cereals: Well cooked cereals or some of the more common, easily digestible dry cereals.

Bread: Must not be too fresh—preferably toasted.

Beverages: Milk, cream, buttermilk or cocoa.

Butter: A moderate amount.

Desserts: Simple desserts such as gelatin, tapioca, ice cream, ices, sponge cake or plain cookies.

Also olives, soda crackers, salted or unsalted, cottage cheese or cream cheese.

The patient is to avoid seasoning of all kinds, pepper and condiments especially, coffee, tea, alcohol in all forms, tobacco, and fried and greasy foods.

Six months after the beginning of treatment, the diet can be as given except that meats should be restricted to an occasional lamb chop or an occasional serving of chicken.

MUSCAE VOLITANTES

To the Editor:—Please give information and references on the condition known as muscae volitantes. A white man, aged 38, complains of black spots before his eyes. The patient's physical condition is good except for four dead teeth; x-ray examination does not show abscessed roots. The patient's weight is 150 pounds (68 Kg.) and his height 5 feet 10 inches (178 cm.). The blood pressure is normal. The present complaint began one and one-half years ago following an attack of influenza of the nervous type. Black spots appear on exertion, in extreme cold weather, at the beginning of a meal and during straining at stool. The bowels are somewhat constipated. The patient had an attack of catarrhal jaundice in 1925. Is this a physiologic disturbance or is it due primarily to constipation? Please advise treatment. Please omit name.

M.D., Pennsylvania.

ANSWER.—Without a statement as to the condition of the vitreous, it is next to impossible to comment at length on the case in question. This may be an instance of simple thickening of the vitreous fibers in which the shadow caused by the crossing of the fibers becomes apparent only when the retinal vessels are engorged. On the other hand, it may be a case of true fibrin or blood clots in the vitreous due to some minor pathologic process. Again, it may be visibility of the blood cells within the retinal capillaries. See Helmholtz's Physiological Optics, third edition, translated in 1924, volume 1, page 204. First the patient should be examined by an ophthalmologist.

MINIMUM VISION REQUIREMENTS FOR BUS DRIVERS

To the Editor:—What do you consider should be the minimum vision requirements (Snelling's test type) of drivers of passenger busses on city streets with or without glasses? You need not go to the trouble of discussing night-blindness, diminished visual field or the general health or mentality.

M.D., Alabama.

ANSWER.—There are four minimum vision requirements of drivers of passenger busses which should be complied with:

1. Central vision should be at least 20/20 in one eye and at least 20/40 in the other, with or without glasses.
2. The driver should have normal color vision.
3. The driver should have normal field vision.
4. The driver should have normal stereoscopic vision (most important in judging distance).

TUBERCULOSIS IN DOGS

To the Editor:—In Queries and Minor Notes in THE JOURNAL, February 6, page 495, in a discussion of tuberculosis as it occurs in dogs and cats, the statement is made that tuberculosis was observed in approximately 1 per cent of the autopsies on 1,548 dogs. We have conducted autopsies at the North Shore Animal Hospital for sixteen years, and we are still looking for tuberculosis in the dog or the cat. Our experience is analogous to that of a number of other veterinary practitioners in America; consequently, I should like to know where these 1,548 autopsies were held. I do not doubt the existence of tuberculosis in dogs and cats, but observation of the disease in approximately 1 per cent of instances is startling. Even in Holland, according to Jakob (Innere Krankheiten des Hundes), in the period from 1906 to 1912 only eleven cases of tuberculosis were found in 568 dogs examined. This is 1.9 per cent.

D.V.S., Illinois.

ANSWER.—The 1,548 necropsies on dogs were reported from the Laboratory of Veterinary Pathology of the University of Pennsylvania by W. J. Crocker. The title of his article and the reference to his paper are as follows: Three Thousand Autopsies, *Corn. Vet.* **9**:140, 1919.

IMMUNIZATION WITH SCARLET FEVER ANTITOXIN

To the Editor:—What percentage of protection is obtained from administering the scarlet fever antitoxin to contacts, provided it is given during the early part of the incubation period? Please omit name.

M.D., Texas.

ANSWER.—A prophylactic dose of scarlet fever antitoxin administered to the susceptible infected contacts before any symptoms of the disease, such as sore throat or fever, have developed should prevent the development of scarlet fever on account of the existing infection, although, after two weeks, scarlet fever may develop from a subsequent exposure through contact with a case of scarlet fever or an immune carrier. The protection from a prophylactic dose of antitoxin is transient, lasting about two weeks, at the end of which time the serum is largely eliminated from the body.

If the infected person has developed symptoms such as sore throat or fever, a therapeutic dose of antitoxin should be given.

Reports have been made on several institutions in which scarlet fever was successfully controlled by this procedure.

But before the quarantine was abolished between the infected and the noninfected groups the susceptible infected persons who had received the antitoxin to prevent the immediate development of scarlet fever were actively immunized with scarlet fever toxin in order to protect against subsequent infection through contact with carriers known to be living in the institutions.

DIPHTHERIA STATISTICS

To the Editor:—I am wondering whether there has been any record made by the different biologic laboratories as to whether or not there has been any reduction in the sales of diphtheria antitoxin since the discovery of and use of the various preventive methods for diphtheria. If there is, it would assist me and others in urging the use of the diphtheria prevention.

M.D., Texas.

ANSWER.—Information as to the amounts of diphtheria antitoxin distributed by the different biologic laboratories before and after introduction of the various diphtheria prophylactics is not available. Even if available, it might be of questionable significance, since it is possible that more antitoxin is being used in the treatment of the individual case and that more cases are being brought into treatment. Apparently much more significant is the incidence and mortality of diphtheria in cities where preventive inoculation has been used extensively. Among reports bearing on this point is an article entitled "Diphtheria Mortality in Large Cities of the United States in 1935" (THE JOURNAL, June 13, 1936, p. 2060), in the last paragraph of which it is stated that "the striking feature in the 1935 diphtheria record appears to be that wherever preventive inoculation against diphtheria is practiced consistently diphtheria deaths well-nigh cease to occur, and in some communities diphtheria morbidity is also reduced to an insignificant figure."

SENSE OF SMELL IN CHRONIC SINUSITIS

To the Editor:—During the World War I contracted sinus infections involving the frontal and maxillary groups. Six weeks following this acute infection I noticed that my sense of smell began to be less acute and finally, over a period of time, the sense of smell completely disappeared. The sinuses drained for years (at intervals) but now they have been inactive for several years and within the last year I have noticed that I am able to detect some odors, very faintly, of course. At times, however, the odors are quite pronounced. I have no nasal deformities and am in excellent health otherwise. The return of this faint sensation of smell is encouraging to me and I would certainly appreciate suggestions from you as to what sort of treatment I might be able to carry out myself in the way of some graduated stimulation to the nerve endings to assist in restoring this sensation. Please omit name.

M.D., New Hampshire.

ANSWER.—In the presence of chronic sinusitis or at least frequent acute recurrences, the sense of smell is apt to disappear or become markedly blunted because, first of all, the secretions by their presence mechanically block the nares and do not permit odors to reach the olfactory area. It may further be that the general inflammation of the lining membrane dulls the physiologic receptivity of the olfactory fibers. The return of the sensation of smell is, of course, encouraging. There are no exercises or types of stimulation, excepting those which are physiologic, that can bring back the sense of smell. The only hope there is of complete restoration is to remove those hypertrophies, polyps or residual infection, which, done well, allows odors to be brought in contact with the schneiderian area.

DIAPHRAGMATIC HERNIA AFTER LABOR

To the Editor:—My wife was recently delivered of her first baby by forceps delivery after twenty-seven and one-half hours of labor. She had never complained of any symptoms referable to the gastric region. During labor she twice vomited "coffee brown" material, which was found to be blood. Shortly after her confinement, roentgenograms were taken of the stomach. The upper fourth of the stomach was found herniated into the thorax through the esophageal hiatus. Since her labor she has had only occasional heartburn, no other symptoms, no vomiting, and the stools are normal. Please omit name.

M.D., Pennsylvania.

ANSWER.—The condition described is a diaphragmatic hernia due to unusual relaxation of the esophageal hiatus. The prognosis is excellent and nothing need be done about the condition unless disturbing symptoms arise. These symptoms may consist of severe pain often after eating, or sharp pain in the chest which resembles that of coronary disease. Not infrequently a diagnosis of heart disease is made on the basis of the character of this pain. Another symptom to which attention should be paid is severe and frequent attacks of heartburn. More important still is hematemesis, which should lead to a careful study for the detection of gastric ulcer. The latter condition is not infrequently associated with a diaphragmatic hernia.

"DOSAGE OF BROWN MIXTURE"

To the Editor:—Permit me to call in question the answer on "Dosage of Brown Mixture for Cold" (THE JOURNAL, Dec. 26, 1936, p. 2153). In the first place the unit of measure for antimony and potassium tartrate is grams, not cubic centimeters as recorded in the formula. In the second place, referring to your last sentence, which seems superfluous, what medicine ever does immunize against colds? In the third place, if a 2-year old, for example, received about 1 drachm of the mixture (or about 14/1,000 grain of antimony and potassium tartrate and between 7 and 10 minims of paregoric) every two hours, would he be getting from these two main ingredients of this old time shotgun mixture much more than mild sedation and perhaps some expectorant effect? Certainly if he does not exhibit nausea at the outset he ought to be able to handle a half teaspoonful every two hours without emesis. From one to two drops of brown mixture per year of age would seem pretty homeopathic. Undoubtedly this combination is far from ideal for colds, but if it is wanted in the West Indies, why not give it a chance?

M.D., New York.

ANSWER.—The calculation for antimony and potassium tartrate is correct; there are 7 minims of paregoric in the mixture if the teaspoonful equals 4 cc.

TRICHLORETHYLENE AS CAUSE OF DERMATITIS

To the Editor:—A tailor has developed a severe dermatitis of the hands, which I have traced to use of a cleaning fluid containing trichlorethylene. This fluid is used in cleaning clothes. What can be done to prevent this occupational dermatitis (besides wearing rubber gloves)?

M.D., New York.

ANSWER.—Trichlorethylene, a cleaning fluid, which is sometimes used in the place of carbon tetrachloride, burns the skin of the hands. Avoidance of contact with this chemical in cases exhibiting sensitivity is the only effective preventive therapy. Mildly involved patients can sometimes continue work with protection of the parts by long sleeves and gloves and a protective ointment. The patient may try using some other cleansing fluid, such as carbon tetrachloride, to which he may not be sensitive. Patch testing with the new fluid to be used is advised to determine whether sensitivity exists to it. There is no successful method of desensitization to chemical irritants.

USE OF TETANUS ANTITOXIN

To the Editor:—It is an almost universal practice to administer tetanus antitoxin as soon as possible after an injury. Since the purpose of the antitoxin is not to immunize but simply to neutralize toxin, when formed, would it not be more logical, as well as more effective, to withhold it for several days? Please omit name.

M.D., New Jersey.

ANSWER.—The object in giving antitoxin promptly after injury is to provide the means of neutralizing the toxin as soon as it is produced. This neutralizing effect may be possible for some days, because free antitoxin is eliminated gradually. And immediate neutralization of the toxin undoubtedly favors the destruction by phagocytosis and other means of the toxigenic tetanus bacilli lodged in the injured tissue. Delay in giving antitoxin may provide opportunity for the toxin to form the irreversible union with nerve cells that results in tetanus.

LYMPHOGRANULOMA OF STOMACH

To the Editor:—In THE JOURNAL, Dec. 19, 1936, on page 2025 at the end of the second paragraph of "Leukemia of the Stomach Producing Gastric Mucosa," by Rigler, the author states that "the roentgen examination led to a diagnosis of carcinoma rather than of lymphogranuloma." Did he possibly mean lymphogranuloma inguinale? Perhaps what he really had in mind was lymphogranulomatosis.

MARK STERN, Los Angeles.

ANSWER.—Lymphogranuloma—meaning Hodgkin's disease localized to one area—was correctly used in the sentence referred to in the inquiry. Lymphogranulomatosis refers to the generalized form of Hodgkin's disease and is often used as a synonym for multiple lymphoma. There is, of course, no relationship whatever to lymphogranuloma inguinale.

GONOCOCCUS CARRIERS

To the Editor:—Are there any cases on record of persons who have never had clinical symptoms and who have good reproductive ability but who harbor gonococci in the genito-urinary tract?

M.D., Ohio.

ANSWER.—In the adult female without previous clinical diagnosis of gonorrhea, a gonococcus carrier state frequently occurs without clinical symptoms. The carrier state is more likely to occur in a person who has formerly had gonorrhea, and a later new infection often causes no marked subjective symptoms. In the male, however, it seems to be extremely rare for gonorrhea to escape detection by the patient.

Medical Examinations and Licensure

COMING EXAMINATIONS

STATE AND TERRITORIAL BOARDS

ALASKA: Juneau, Sept. 13. Sec., Dr. W. W. Council, Box 561, Juneau.

ARIZONA: Phoenix, July 6-7. Sec., Dr. J. H. Patterson, 826 Security Bldg., Phoenix.

ARKANSAS: *Eclectic.* Little Rock, Dec. 21. Sec., Dr. Clarence H. Young, 1415 Main St., Little Rock.

CALIFORNIA: San Francisco, June 28-July 1, and Los Angeles, July 19-22. Sec., Dr. Charles B. Pinkham, 420 State Office Bldg., Sacramento.

COLORADO: Denver, July 6. Sec., Dr. Harvey W. Snyder, 422 State Office Bldg., Denver.

CONNECTICUT: *Medical (Homeopathic).* Derby, July 12. Sec., Dr. Joseph H. Evans, 1488 Chapel St., New Haven. *Medical (Regular).* Hartford, July 13-14. *Endorsement.* Hartford, July 27. Sec., Dr. Thomas P. Murdock, 147 W. Main St., Meriden.

DELAWARE: Dover, July 13-15. Sec., Medical Council of Delaware, Dr. Joseph S. McDaniel, Dover.

DISTRICT OF COLUMBIA: *Basic Science.* Washington, June 28-29. *Medical.* Washington, July 12-13. Sec., Commission on Licensure, Dr. George C. Ruhland, 203 District Bldg., Washington.

HAWAII: Honolulu, July 12-15. Sec., Dr. James A. Morgan, 48 Alexander Young Bldg., Honolulu.

IDAHO: Boise, Oct. 3. Commissioner of Law Enforcement, Hon. J. L. Balderston, 205 State House, Boise.

ILLINOIS: Chicago, Oct. 19-21. Superintendent of Registration, Department of Registration and Education, Mr. Homer J. Byrd, Springfield.

IOWA: *Basic Science.* Des Moines, July 13. Sec., Prof. Edward A. Benbrook, Iowa State College, Ames.

MAINE: Augusta, July 6-7. Sec., Board of Registration of Medicine, Dr. Adam P. Leighton, 192 State St., Portland.

MASSACHUSETTS: Boston, July 13-15. Sec., Board of Registration in Medicine, Dr. Stephen Rushmore, 413-F State House, Boston.

MONTANA: Helena, Oct. 5-6. Sec., Dr. S. A. Cooney, 205 Power Block, Helena.

NEVADA: *Reciprocity.* Carson City, August 2. Sec., Dr. John E. Worden, Carson City.

NEW HAMPSHIRE: Concord, Sept. 9. Sec., Board of Registration in Medicine, Dr. Fred E. Clow, State House, Concord.

NEW MEXICO: Santa Fe, Oct. 11-12. Sec., Dr. Le Grand Ward, Sena Plaza, Santa Fe.

NEW YORK: Albany, Buffalo, New York and Syracuse, June 28-July 1. Chief, Professional Examinations Bureau, Mr. Herbert J. Hamilton, 315 Education Bldg., Albany.

NORTH DAKOTA: Grand Forks, July 6-9. Sec., Dr. G. M. Williamson, 4½ S. 3rd St., Grand Forks.

OREGON: *Basic Science.* Corvallis, July 17. Sec., State Board of Higher Education, Mr. Charles D. Byrne, University of Oregon, Eugene.

PENNSYLVANIA: Philadelphia and Pittsburgh, July 6-10. Sec., Board of Medical Education and Licensure, Dr. James A. Newpher, Education Bldg., Harrisburg.

PUERTO RICO: San Juan, Sept. 7. Sec., Dr. O. Costa Mandry, Box 536, San Juan.

RHODE ISLAND: Providence, July 1-2. Chief, Division of Examiners, Mr. Robert D. Wholey, 366 State Office Bldg., Providence.

SOUTH DAKOTA: Rapid City, July 20-21. Director of Medical Licensure, Dr. B. A. Dyar, State Board of Health, Pierre.

WASHINGTON: *Basic Science.* Seattle, July 8-9. *Medical.* Seattle, July 12-14. Dir., Department of Licenses, Mr. Harry C. Huse, Olympia.

WEST VIRGINIA: Fairmont, July 12. Sec., Public Health Council, Dr. Arthur E. McClue, State Capitol, Charleston.

WISCONSIN: Milwaukee, June 29-July 2. Sec., Dr. Henry J. Gramling, 2203 S. Layton Blvd., Milwaukee.

NATIONAL BOARD OF MEDICAL EXAMINERS SPECIAL BOARDS

Examinations of the *National Board of Medical Examiners and Special Boards* were published in THE JOURNAL, June 19, page 2160.

Washington January Examination

Mr. Harry C. Huse, director, Department of Licenses, reports the written examination held by the State Board of Medical Examiners in Seattle, Jan. 11-13, 1937. The examination covered 7 subjects and included 70 questions. Eleven candidates were examined, all of whom passed. Twenty-nine physicians were licensed by reciprocity and 5 physicians were licensed by endorsement after an oral examination. The following schools were represented:

School	PASSED	Year Grad.	Number Passed
University of Illinois College of Medicine		(1915)	1
Harvard University Medical School		(1934), (1935)	2
University of Michigan Medical School		(1932)	1
University of Minnesota Medical School		(1937)*	1
University of Oregon Medical School		(1935, 2)	2
University of Pennsylvania School of Medicine		(1932), (1933)	2
Thüringische Landesuniversitat Medizinische Fakultät, Jena		(1925)†	1
Universität Bern Medizinische Fakultät		(1935)	1

School	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
University of Colorado School of Medicine		(1935)	Colorado
University of Georgia School of Medicine		(1934)	Georgia
Rush Medical College		(1935)	Utah
State Univ. of Iowa College of Med.		(1923), (1931), (1934)	Iowa
University of Louisville School of Medicine		(1936)	Kentucky
University of Minnesota Medical School		(1933), (1936)	Minnesota
St. Louis College of Physicians and Surgeons		(1897)	California
Washington University School of Medicine		(1932)	S. Dakota
University of Nebraska College of Medicine		(1930), (1931), (1932), (1933)	Nebraska, (1935) Oregon
University of Oklahoma School of Medicine		(1935, 2)	Oklahoma
University of Oregon Medical School		(1925), (1931), (1934), (1935, 2), (1936)	Oregon
Jefferson Medical College of Philadelphia		(1927)	California
University of Pennsylvania School of Medicine		(1931), (1932)	Penna.
Vanderbilt University School of Medicine		(1914)	Tennessee
University of Virginia Department of Medicine		(1931)	Virginia

School	LICENSED BY ENDORSEMENT	Year Grad.	Endorsement of
College of Medical Evangelists		(1934, 2)	N. B. M. Ex.
University of Minnesota Medical School		(1935)	N. B. M. Ex.
University of Oklahoma School of Medicine		(1935)	N. B. M. Ex.
University of Oregon Medical School		(1929)	N. B. M. Ex.

* License has not been issued.
† Verification of graduation in process.

Wyoming Reciprocity Report

Dr. G. M. Anderson, secretary, Wyoming State Board of Medical Examiners, reports 4 applicants licensed by reciprocity at the meeting held in Cheyenne, Feb. 8, 1937. The following schools were represented:

School	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Rush Medical College		(1934), (1936)	Illinois
Western Reserve University School of Medicine		(1920)	Utah
Osteopath*			Iowa

* Licensed to practice osteopathy and surgery.

Book Notices

Abortion, Spontaneous and Induced: Medical and Social Aspects. By Frederick J. Taussig, M.D., F.A.C.S., Professor of Clinical Obstetrics and Clinical Gynecology, Washington University School of Medicine, St. Louis. Sponsored by the National Committee on Maternal Health, Inc. Cloth. Price, $7.50. Pp. 536, with 146 illustrations. St. Louis: C. V. Mosby Company, 1936.

Abortion has become not only a great medical problem but also a great social problem. The author has estimated that 681,600 abortions occur annually in the United States. He endeavors to give here all the essential information available. In the historical chapter it is said that one of the oldest abortifacient recipes is still in existence although more than 4,600 years old. Abortion is mentioned in the literature of the ancient Hebrews, Egyptians, Greeks and Romans. Plato desired that his Republic should not consist of more than 5,040 citizens and to maintain a balance of this number he recommended the limitation of births. Aristotle is quoted as having said "If it should happen among married people that a woman who already had the number of prescribed children became pregnant, then before she felt life, the child should be driven from her." Chapters four and five review the anatomy and physiology of early pregnancy, and the pathology of abortion. These two short chapters are essential but they do not offer anything new, as this knowledge has been available for years. Chapters follow on the etiology of spontaneous abortion, prevention, symptoms and signs, and the diagnosis of abortion. The differential diagnosis between spontaneous and induced abortion is at times most important. The presence of fever early in the course of an abortion points to criminal intervention, while hemorrhage in such cases is likely to be more profuse and sudden. There is a tabulated summary of the points in the differential diagnosis between tubal abortion and uterine abortion. The author writes in the chapter on treatment that if the temperature is over 100 F. for more than twenty-four hours the case should be considered septic. Conservatism and a waiting policy in the treatment of uninfected cases is emphasized. Even in septic abortion the delay of a few days to determine the presence of any extension of the infection beyond the uterus is advised. A delay of five days in the evacuation of the uterus, it is said, is always almost possible and does not harm the patient. During this time many cases will terminate spontaneously and in the remainder there will be a better opportunity to build up resistance to the infection. If the temperature has remained normal for from three to five days, emptying of the uterus will expedite recovery and usually do no harm. In case of profuse

bleeding, immediate evacuation of the uterus by the gentlest method possible is indicated and the blood loss promptly replaced by blood transfusions. There is a chapter on operative technic, and then the author discusses the treatment of infection outside the uterus that has resulted from an abortion. The mainstay of treatment at present is rest, good nursing, good diet, blood transfusion, and above all fresh air and sunshine for the purpose of building up resistance to the infection. Perforation of the uterus occurs about once in about every 200 or 300 evacuations of the uterus, and every second or third perforation ends fatally. Of the instruments responsible for perforations, the curet is by far the most common offender. Other complications of abortion include inversion of the uterus, fatal hemorrhage, gangrene of the extremities, and prolonged retention of fetal parts.

The indications for therapeutic abortion have changed from time to time. In the latter part of the nineteenth century the indications were extended to include tuberculosis, heart disease, nephritis and certain forms of psychoses. Since the World War there has been an increased tendency to extend the indications to eugenic and to social and economic factors. The author believes that abortion may also be justified in patients showing asthenia, loss of weight and physical depression, especially if there are several children and the mother has heavy household duties and lacks resources to care properly for children already born. Following chapter twenty, on methods and technic of therapeutic abortion, the prevention of conception by surgical methods of sterilization—resection of the tubes, excision of the uterine cornua and tubal electrocoagulation—is considered. The so-called safe period, he says, is too unreliable to be given serious consideration as the sole method of restricting conception.

In the closing chapters, Dr. Taussig discusses the economic, theological, ethical and legal aspects of induced abortion. There is a chapter on the unusual situation that arose in the Soviet Union following the passage of a law in 1920 which legalized abortion in that country. The author believes that the increase in the number of abortions throughout the world has been due less to laxity of morals than to economic conditions. The underlying faults in our social structure that have led to the present alarming number of abortions can be grouped under the five headings of (1) economic distress, (2) occupational changes, (3) illegitimacy, (4) domestic relations and (5) fear of confinement.

Although, since the war, laws have been passed in some countries widening the medical indications for therapeutic abortion, an amazing situation still exists. The author says that leading obstetricians might almost without exception be sentenced to years of imprisonment if the law as it stands were strictly enforced. He knows of no other instance in which there has been such a universal disregard for a criminal law. There are brief discussions of the abortion laws in various countries. In an appendix are the statutes relating to the procuring of abortion in the states and territory of the United States in 1934. These are followed by an extensive bibliography and a well arranged index.

Die Tsetsefliegen: Ihre Erkennungsmerkmale, Lebensweise und Bekämpfung. Ein Leitfaden für die Praxis. Von Dr. F. Zumpt. Paper. Price, 9 marks. Pp. 149, with 136 illustrations. Jena: Gustav Fischer, 1936.

The tsetse flies are notorious as the insect vectors of the fatal nagana of domesticated mammals and of the equally dangerous sleeping sicknesses of man, both due to trypanosomes in the blood stream and fortunately both confined to tropical Africa by reason of their dependence for mammalian infection on the bite of the infected tsetse fly. Cattle are excluded from 200,000 square miles of Africa by the prevalence of these flies, and the deaths among men have been in the hundreds of thousands annually since the discovery of the cause of the disease in the blood of man by Dutton in 1902. These flies delay the civilization of tropical Africa for a distance of 600 miles on each side of the equator.

The author investigated these flies in the Cameroons in 1935 and this book bears the impress of his contact both with the scientific and practical problems that underlie all efforts to understand these diseases and every effort to control them.

A brief account is given of the anatomy, morphology, feeding and reproduction of the tsetse flies, all of which belong to the genus Glossina, in which the author recognizes twenty species, to a critical account of which about half of the book is devoted. The remainder is concerned with the ecology of the flies in their pupal and winged stages and with the practical measures for control. The female produces from seven to ten larvae in a lifetime of three months, or one about every ten days. The larvae are deposited in damp situations, bore into the substrate several centimeters, pupate, and after from twenty-five to fifty-five days emerge as flies unless perchance destroyed by other parasitic flies whose larvae live in the tsetse pupa. About 50 per cent of pupae in the wild have been found to be destroyed by such parasites. Flies are most abundant during the dry season. The apparent fly density is tested in terms of the catch of flies per boy-hour. Males exceed the females by 4 to 1, and of 156 females only seven carried large pupae, indicating the retiring habit of the pregnant fly.

Practical measures suggested for restricting the ravages of the tsetse fly are: 1. Reducing the population of other carrier mammals that may also become infected. This fails because of forest conditions, migrations of game, and the fact that even very small mammals may serve as hosts. It is also futile and objectionable from the standpoint of conservation of wild life. 2. Cure of infected persons; but this is expensive, difficult to apply in early stages of the disease, and vitiated to a large degree by animal carriers. 3. Restriction of domestic animals and men in fly country to large clearings freed from brush and trees, which are less open to fly invasion. Avenues through the bush and rain forests are cleared for travel but to be effective they must be 1,200 yards in width. Poisoning trees with arsenicals and girdling to induce termite attack reduce the cost of clearing. Smoking out flies from vehicles in specially prepared huts reduces transfer of flies by traffic. These clearing methods require supervision by an ecologist familiar with the territory and species of fly. 4. Trapping flies in continuously operating traps designed to utilize their instincts to seek shelter in a dark background and in the shade, and building pupation chambers for trapping pupae. These have given excellent results in reducing fly density. 5. Biologic control by breeding parasites of the tsetse fly in other flies and releasing them. This method has been tried but awaits tests of its ultimate effects.

Rural Health Practice. By Harry S. Mustard, M.D., Associate Professor, Public Health Administration, School of Hygiene and Public Health, The Johns Hopkins University. Cloth. Price, $4. Pp. 603, with 28 illustrations. New York: Commonwealth Fund; London: Oxford University Press, 1936.

While one may disagree with the author in his attitudes toward a number of fundamental concepts of public health work, it is a pleasure to commend the clear, orderly, comprehensive, understanding and wise presentation that he has made of the practical problems of the health officer in a rural community. The author, in this work as in others, believes in certain principles that do not meet with agreement among physicians in general, such as his approval, at least in part, of making the public health administration a division of a department of public welfare, his approval of the principle of "extra state" funds for local health work, and his rather sweeping condemnation of the principle of health districts, which in at least three states are giving satisfactory service. It is not likely that, even "ultimately," all of the three thousand odd counties of the United States should have full time individual health units; there are too many counties which are now and appear for some time destined to be nothing more than large expanses of landscape peopled by not much of anything. To postulate full time health service for such areas, except in theory, is to cry for the moon. Yet with all that, the book remains a genuine and much needed contribution to the library of the health officer in the small community, rural in character. It would make excellent reading for many a health officer even in the largest communities, since all of them deal with human beings, and human nature is not much different wherever it is found. The problems of the health officer are discussed in a frank, sympathetic manner. The author is well qualified by experience to speak on his subject. His advice is sensible and is given in sufficient detail so that it should constitute counsel of real value for the young administrator, filled with theoretical knowledge, but who has yet to experience his first community contacts, with all the perils of misunderstanding and mistakes that

they involve. The text is salted with enough pointed humor to make it easy and pleasant reading. The book is well documented and well indexed. There are a few good tables, notably some sample budgets that are within reason and represent practical expectations under existing conditions. The volume should be a useful reference book for those engaged in or about to engage in public health work, including the members of medical society committees now cooperating in advisory capacities to state health departments under social security legislation or otherwise.

A Handbook of Tropical Therapeutics. By R. N. Chopra, C.I.E., K.H.P., M.D., Professor of Pharmacology, Medical College, Calcutta. Cloth. Price, Rs. 25/. Pp. 1,748. Calcutta: Art Press, 1936.

Therapy is taught in the medical schools of India from British and American textbooks based on experience in countries in which climatic and morbid conditions differ from those in the tropics. Medical experience in India indicates that therapy approved in temperate regions is not universally applicable in the tropics, is sometimes disappointing, and may even lead to untoward results. Hence this book, based on fifteen years of graduate teaching and of practice in the Carmichael Hospital for Tropical Diseases by the author with the aid of his colleagues in Calcutta.

This treatise deals with almost the entire range of therapy and is thus a practical vade mecum for the practice of medicine in the tropics viewed primarily from the standpoint of therapeutics. It falls into six parts. Part I is an extended treatment of the action, modifying agencies and administration of drugs; acidosis and alkalosis; chemotherapy; physical therapy; diet and dietetics in the tropics; pyrexia; hypnotics and analgesics; and tonics. Part II deals with helminthic diseases and gives extensive discussions of the chemistry, pharmacologic action, anthelmintic effects, administration and dosage, toxic effect, treatment of poisoning, and precaution and contraindications of filix mas, kousso, carbon tetrachloride, tetrachlorethylene, oil of chenopodium, santonin, thymol, beta-naphthol, resorcinol derivatives, and arsenic and antimony compounds. The specific treatment for each helminthic infection such as those by various tapeworms, roundworms and flukes is given in the light of the latest experimental results. This part will be of greatest value to practitioners generally, since many helminthic infections are not confined to the tropics and the latest therapeutic advice is generally not quickly accessible.

Part III discusses protozoal diseases, especially amebiasis, leishmaniasis, trypanosomiasis and malaria. Spirilloses also are included here although more properly classified with bacterial infections. This part is also of great value because of the long and extensive experience in India with amebiasis and malaria, neither of which is confined to the tropics. The discussion is on the same plan as in that of helminthic diseases. Of especial importance is the analysis of the results of the compounds of ipecacuanha and of emetine and their various combinations with other agents; of the arsenicals stovarsol and carbarsone and of chiniofon. Less adequate is the discussion of the adjuvant effect of vioform. Experience with carbarsone for amebiasis, used with caution to avoid optical reaction, seems to be quite satisfactory.

The manifold pharmacologic and therapeutic problems that have accumulated about the quinines and their derivatives in the treatment of the malarias are amply presented. The reader will find here the latest information on quinines, on totaquina, the combination of the alkaloids of several species of Cinchona, and on plasmochin and atabrine, two synthetic compounds evolved by using the structural formula of methylene blue as a starting point. Plasmochin has not entirely replaced quinine, since it is destructive only to the parasites in the sexual phases, the so-called crescents, thus rendering the patient noninfective to the mosquito. It still leaves him subject to attacks of malaria, because it does not destroy the asexual forms in the red corpuscles. These facts are obscured in the book by an error (p. 602, line 11) in which the word "plasmodium" occurs in place of "plasmochin." To supplement this drug, another synthetic compound, atabrine, has been produced which is lethal to these asexual stages. This drug has a low toxicity, with a wide margin between the effective therapeutic dose and the toxic dose. The combination of the two drugs affords an effective treatment against both types of parasitic infection by the malarial parasite. Atabrine has attained a great reputation as an effective remedy in preventing relapses in all species of human malaria.

The author adheres to the view that curative treatment, aimed at eradication of the infection, is advisable as a public health measure in territories in which malaria is infrequent and immunities are not readily maintained, and that clinical treatment only, merely to check the disease, be given in regions of a high malarial index.

Part IV discusses bacterial and virus diseases and part V reviews the remedies for miscellaneous tropical diseases, including the bites of poisonous animals and drug addiction. Part VI discusses the omnipresent skin diseases. This is followed by a dictionary of diagnosis and treatment of tropical diseases, an appendix of recent work, and a large list of useful tables. This book has much useful information in it.

The Public Health Program. Under Title VI of the Social Security Act. Supplement No. 126. U. S. Treasury Department, Public Health Service. Paper. Price, 5 cents. Pp. 23. Washington, D. C.: Supt. of Doc., Government Printing Office, 1937.

The purpose of the grants to the states is to strengthen state and territorial health departments and thereby to aid in the development of district, county and city health services and in the training of health department personnel. The provision of medical care, other than that involved in immunization for the prevention of communicable diseases and the treatment of venereal diseases to render cases noninfectious, is not contemplated under the provisions of the act. The objective is not to establish federal jurisdiction over health work within the states but to aid the states in the development and expansion of their own state and local health services. No standard pattern of organization or administrative practice is set up. Since the most important single factor in the success of a public health program is the fitness of those who administer it, an undisturbed tenure of office for competent persons is essential. To secure this competence, all public health workers should eventually receive at least one full year of special training. Extensive research plans in widely separated fields are now being conducted and it is expected that these will be expanded.

Bones: A Study of the Development and Structure of the Vertebrate Skeleton. By P. D. F. Murray, M.A., D.Sc. Cloth. Price, $2.50. Pp. 203, with 45 illustrations. New York: Macmillan Company; Cambridge: University Press, 1936.

The author discusses briefly certain aspects of the development of the skeleton, especially the relation between the structures seen and the morphogenic factors. The chief value of the book lies in the first four chapters, which deal with embryonic and postembryonic development and with the structure of the normal and modified bony skeleton considered in relation to the function it subserves. The author discusses the primary development of the skeleton, the development of the bony skeleton, functional changes in the forms of bones, mechanical structure of bones, mechanical structure of cartilage and the mechanism of bony adaptation. There is an interesting description of the development of torsions in bones.

Bone structure is to a large degree determined, directly or indirectly, by reaction to the mechanical forces which it is the function of bone to resist. Nevertheless it will have become clear from the facts presented that the time is past when it was possible to describe the whole long and complex story of skeletogenesis in terms of the effects of mechanical stresses, whether of extrinsic and functional origin or arising in direct consequence of the developmental process itself. The form of the cartilaginous model is produced, at least in the case of the larger shafted elements, under the egis of the growth pattern intrinsic from a very early stage within each element. The bony skeleton of the adult shows both in its normal structure and after modification so close a relation to mechanical needs and so great a power of apparently adaptive change that its mechanically suitable nature cannot be doubted. The harmony with functional demands is traceable at all levels of its structure; in the shape of the whole bone, in its division into compact and cancellous bone, in the arrangement of the osteones of the first and of the trabeculae of the second, in the structure

of individual osteones and other lamellar systems, and finally in the intimate composition of the substance bone itself. Every bone structure is a compromise, and no compromise is perfect. The trajectorial theory in its original and most rigid form played a useful part in calling attention to the relation which obviously exists between bony structures and patterns of stress; but, like many theories, it went too far when it claimed all power for its own particular factor and neglected all others.

The position taken in this work is not that of the orthodox trajectorial theory. That theory regards the trabeculae of bone as embodying trajectories in a body of the same form as the bone, stressed in the same way, and of homogeneous composition. The trabeculae are thought of as drawn in such an ideal and hypothetical foundation, and the theory is intimately bound up with the existence of orthogonal structures in which all the trabeculae must cross one another at right angles, a state of affairs which, as stated in an earlier section, is not always found in nature. The view here expressed assumes no such relationship to an ideal homogeneous body, is not affected by the decidedly anisotropic structure of bone, and is compatible with the absence of orthogonal structure.

The Home Treatment of Spastic Paralysis Written in a Simple, Practical Way with Many Detailed Drawings. By Percy Merritt Girard, M.D., F.A.C.S., Chief of Orthopedic Service, Parkland Hospital. Foreword by Earl R. Carlson, B.A., M.S., M.D., Director of Department of Rehabilitation of Motor Disorders, New York Neurological Institute. Cloth. Price, $2. Pp. 130, with 77 illustrations. Philadelphia, Montreal & London: J. B. Lippincott Company, 1937.

This book is designed to help parents of spastic children. It is written for the layman and does not pretend to be a substitute for a doctor's advice and supervision. There is an interesting and instructive foreword by Dr. Carlson, himself a victim of this lesion. The author presents the results of his experience in the treatment of 875 cases of spastic paralysis. He has selected from a large number of exercises those which are most useful in home execution. No elaborate equipment is necessary. He gives the essential facts with regard to spastic paralysis, the location and mechanics of the paralysis, most of the common causes, and recognition of early signs of the condition. He believes that the primary objectives are prevention or correction of deformities and teaching of relaxation and coordination. These are obtained through physical therapy, occupational therapy, the proper selection of toys, and surgery. Dr. Girard brings out the principle of educating reciprocal movements in the treatment of spastic paralysis as well as the principle of muscle reeducation in which only the weaker group is exercised. In other words, it is a matter of coordination rather than muscle weakness. The list of games and toys that make use of both hands rather than emphasizing the use of only the affected arm was well chosen. Practical suggestions are made for the moderately spastic child. Heretofore, books had little material concerning the child who was mildly involved. The book is written in a simple, practical manner and contains a large number of detailed line drawings. It is one of the finest books of its kind and should be in the library of every orthopedic surgeon and every pediatrician and in every home where there is a patient with spastic paralysis.

The Physiology and Pharmacology of the Pituitary Body. By H. B. Van Dyke, Professor of Pharmacology, Peiping Union Medical College, Peiping, China. The University of Chicago Monographs in Medicine. Cloth. Price, $4.50. Pp. 577, with 55 illustrations. Chicago: University of Chicago Press, 1936.

At a time when authors and publishers vie with one another in their attempts to get new tomes on the organs of internal secretion before the medical public, the great majority of which are half-baked compilations of uncritical reports, the appearance of a really competent review in any phase of endocrinology is an event of more than passing importance. Dr. Van Dyke has reviewed some 5,000 publications on the hypophysis in the preparation of this book; of these, 3,000 were selected for inclusion in the excellent bibliography, which requires nearly 180 pages. A vast amount of information and pseudo-information has been carefully sifted and the conclusions set down concisely and clearly. Not the least of the author's contributions consists in defining the limits of known fact and in pointing out the many deficiencies in our knowledge of the pituitary gland and its functions. The healthy skepticism that pervades this book will help to provide an urgently needed antidote to much of the nonsense currently believed about this important organ. Among the subjects covered are the comparative anatomy of the pituitary, effects of hypophysectomy, growth-promoting principle, gonadotropic substances, lactogenic principle, thyrotropic factor, interrelations with other glands, and the effects of extracts on the function of various other organs and on the metabolism of various substances. A useful appendix containing scientific and commercial names of glandular principles and preparations is included in the book; this is one of the most extensive lists of this type available, but it is unfortunately far from complete. Format, typography and illustrations are all excellent.

The Diagnosis and Treatment of Arthritis. By Russell L. Cecil, M.D., Sc.D., Professor of Clinical Medicine, Cornell University. Henry A. Christian, M.D., Sc.D., LL.D., General Editor of the Series. (Reprinted from Oxford Monographs on Diagnosis and Treatment.) Cloth. Price, $4.75. Pp. 263, with 17 illustrations. New York: Oxford University Press, 1936.

The purpose of the author is to bring to the practicing physician a knowledge of the most approved methods in the diagnosis and treatment of arthritis. This reprint from the Oxford monographic series on Diagnosis and Treatment should have appeared as a separate monograph six or seven years ago and at present has not been adequately revised. The author discusses classification of rheumatic fever and various etiologic forms, such as gonococcic, suppurative, allergic, intermittent and traumatic arthritis. He divides acute arthritis into infectious, septic and noninfectious. The first group includes rheumatic fever. The second group includes gonococcic, pneumococcic, suppurative and other less common forms of acute bacterial infection of the joints. Under the third group, noninfectious, there are intermittent hydrarthrosis and allergic and traumatic arthritis. The author believes that there is no disease in the whole field of medicine in which purely symptomatic treatment leads to more barren results. He considers the crucial point in any case of acute or chronic arthritis is to determine whether it is infectious or noninfectious in character. The book is a clear exposition of the subject.

La ponction de la rate. Par P. Émile-Weil, médecin des hôpitaux, P. Isch-Wall, assistant à l'Hôpital Tenon, et Suzanne Perlès, chef de laboratoire à l'Hôpital Tenon. Paper. Price, 35 francs. Pp. 148, with 23 illustrations. Paris: Masson & Cie, 1936.

The various procedures habitually employed in clinical medicine in studying splenic enlargement and tumors of the left hypochondrium have sometimes yielded meager information. This monograph presents the results of what contribution splenic puncture makes to the understanding of this subject. While the method of splenic puncture is not a new procedure, the revival of its use in clinical medicine was coincident with the keen interest and recent progress in the diseases of the blood forming system. The authors review the historical background of the procedure. Its use for the most part was confined to research studies. In clinical medicine it was used mainly for the study of parasitic diseases. Its restricted use was based on fear of accidents. The authors stress the necessity of the systematic use of this procedure and caution against carelessness in the technic. By virtue of their use of the procedure in this manner they now feel qualified to discuss the morphologic pictures obtained by means of splenic puncture in various conditions.

The monograph considers the reactions of the spleen as follows:

I. Splenomegalies associated with a reaction of blood series: (*a*) lymphatic reaction; (*b*) myeloid reaction; (*c*) erythroblastic reaction; (*d*) megakaryocytic reaction; (*e*) leukoblastic or embryonic reaction.

II. Splenomegalies associated with a macrophagic reaction (infections and parasitic infestations).

III. Splenomegaly associated with tumors.

Normal and abnormal splenograms are presented in tabular form and in black and white drawings, which are well executed with the exception of the Gaucher cell. A small and inadequate chapter is devoted to sternal puncture, with no illustrations. Why it was included in a monograph devoted to splenic puncture was not indicated. It neither contributes nor detracts. The technic and cytology of splenic puncture are well presented

but data on splenic puncture in infants and children are almost neglected. The work reflects a long clinical use of the procedure and the authors present data that should prove valuable to any one doing hematologic work extensively. The material is divided into three parts. In the first part of the monograph the authors describe the technic of splenic puncture and the precautions and contraindications, the normal splenogram and a description of the cells encountered, and the pathologic splenogram and a description of the abnormal cellular elements. Part II is concerned with information obtained by splenic puncture on the nature of the splenomegalies, and part III discusses puncture of tumors in the left hypochondrium and sternal puncture. The bibliography is not extensive or complete but is adequate for the material presented. Information available on the systematic use of splenic puncture has been meager, and this monograph fulfils a definite purpose in supplying these data.

Essentials of Electrocardiography for the Student and Practitioner of Medicine. By Richard Ashman, Ph.D., Professor of Physiology, the Louisiana State University Medical Center, and Edgar Hull, M.D., Assistant Professor of Medicine, the Louisiana State University, New Orleans. Cloth. Price, $3.50. Pp. 212, with 101 illustrations. New York: Macmillan Company, 1937.

This reflects for the most part the personal experience of the authors, the basis for their criteria of the normal being a series of 100 cases. These closely agree with the results of many workers that have been used in establishing the criteria for graphic interpretation now employed. "Incorporated in the text is a considerable mass of original material." These observations are valuable but might better have been reported elsewhere. Basic physiology is well presented. The last two chapters dealing with disturbances of the cardiac mechanism could have been advantageously introduced earlier, emphasis still being rightly placed on abnormalities indicating myocardial disease. The views regarding bundle branch block and chest leads are those of F. N. Wilson, as is the technic described for obtaining chest leads. Opinions at variance with the views of others are relatively few. Minor variations from standard terminology are noted. The index is good. This is an excellent presentation of a wealth of valuable observations. The student and the practitioner will find the book most useful as a supplement to one of the other more comprehensive textbooks employing "the 'classical' approach" in presentation.

Principles of Pharmacy. By Henry V. Arny, Ph.M., Ph.D., Dean and Professor of Chemistry in the College of Pharmacy of Columbia University. With the collaboration of Robert P. Fischelis, B.Sc., Ph.M., Phar.D., Secretary and Chief Chemist, Board of Pharmacy, State of New Jersey. Fourth edition. Cloth. Price, $8. Pp. 1,139, with 294 illustrations. Philadelphia & London: W. B. Saunders Company, 1937.

This book is primarily written for students of pharmacy, but it contains considerable material with which the physician should be familiar. The volume consists of seven parts: (1) pharmaceutic processes, (2) galenical preparations of the pharmacopeia and those unofficial that are worthy of notice, (3) inorganic chemistry, (4) organic chemistry, (5) chemical testing and analytic methods of the pharmacopeia, and (6) the dispensing of prescriptions. The present edition is based on the Pharmacopeia XI and the National Formulary VI. It is unfortunate that neither New and Nonofficial Remedies nor the recent advances in the chemistry of glandular products are mentioned.

Esplenomegalias crónicas no leucémicas: Indicaciones médicas de la esplenectomia. Por el Dr. Rodolfo Armas Cruz, profesor extraordinario de patología médica. Paper. Price, $4. Pp. 526, with 29 illustrations. Santiago de Chile: Central Pacifico de Publicaciones, 1936.

This voluminous essay should be of great value for those interested in certain phases of knowledge pertaining to the spleen. The work comprises more than could be expected from the title and is divided into three parts. The first gives a thorough description of the embryology, anatomy, physiology and methods employed in the study of the functions of the reticulo-endothelial system; one chapter of this first part is devoted to the physiology of the spleen. The second part describes methods of investigation of the spleen function; one section treats of hypersplenia; the author offers a definition of this condition and describes several varieties of it and the diagnosis. The third part carries the title of the book and is subdivided into two sections; one deals with hemolytic jaundice and the other with chronic splenic anemia. Purely surgical conditions, such as abscess, tumor and cyst of the spleen are beyond the scope of the book; the author confines his discussion to nonleukemic splenomegalies in which splenectomy is indicated. His conclusions are based on the correlation of clinical, hematologic and anatomic observations in numerous cases. A large number of charts, photomicrographs and case histories demonstrate the great personal experience of the author. Whether his subdivision of chronic splenomegalies of nonleukemic origin is preferable to Aubertin's classification is a matter of personal view; this is not the place to enter into a polemical discussion. It is questionable from the didactic, diagnostic and therapeutic points of view whether one can approach the problem of nonleukemic splenomegalies without taking into consideration such conditions as polycythemia, essential thrombopenia, aleukemic lymphadenosis or myelosis, multiple chloromas of aleukemic origin, and bronze diabetes. A unanimity of opinions cannot be expected with regard to such obscure problems as are offered by pathologic conditions of the spleen. Notwithstanding the foregoing remarks, the scholarly work merits a high place among monographs on the spleen.

La vésicule biliaire et ses voies d'excrétion. Anatomie—Physiologie—Sémiologie—Pathologie—Thérapeutique. Par M. Chiray, professeur agrégé à la Faculté de médecine de Paris, et I. Pavel, maitre de conférences à la Faculté de médecine de Bucarest. Avec un exposé de radiologie vésiculaire. Par A. Lomon, electro-radiologiste des hôpitaux de Paris. Second edition. Paper. Price, 120 francs. Pp. 863, with 203 illustrations. Paris: Masson & Cie, 1936.

The first edition of this monograph was published in 1926. The first part of the new edition covers the details of the anatomy, histology and physiology of the gallbladder and bile ducts. From this point on the author takes up successively methods of physical examination and duodenal drainage and discusses in detail the significance of the types of bile present. There is a long chapter dealing with radiologic examination of the gallbladder, including choledochographic studies. Various types of lesions of the gallbladder are discussed in detail and several reproductions of colored photographs show various types of diseases of the gallbladder and various types of gallstones. There is a good chapter on functional abnormalities of the biliary tract and a chapter on carcinoma of the gallbladder. It would appear, however, that too brief a portion of the book is given to the matter of therapy, only thirty-eight pages being given to the surgical treatment. This chapter on surgical treatment contains too few illustrations. Except for this, each chapter covers the subject matter fully, and the whole monograph furnishes a detailed presentation of the subject of diseases of the gallbladder and bile ducts. There is a detailed bibliography.

A Woman Surgeon: The Life and Work of Rosalie Slaughter Morton. Cloth. Price, $3. Pp. 399, with one illustration. New York: Frederick A. Stokes Company, 1937.

Good autobiographies are greatly appreciated. That of the distinguished woman surgeon Rosalie Slaughter Morton is a gem. It is a deeply moving story of the evolution of one of the most prominent pioneer women surgeons in the United States. The true tale is full of thrilling, touching or amusing stories. Personal reminiscences are interspersed with sketches of the humanitarian work of the author among the lower strata of various nations; extensive travel and exciting personal adventures are described with a narrative technic rarely found in modern biography. The entertaining book not only provides delightful reading material but offers a picture of an exemplary life, worthy of imitation.

Fifteenth Hospital Yearbook. 1937 Hospital Purchasing File: Directory of Products, Manufacturers' Catalogs, Purchasing and Other Reference Data. Cloth. Price, $2.50. Pp. 804, with illustrations. Chicago: Modern Hospital Publishing Company, Inc., 1937.

This book contains a discussion of the methods and principles of hospital purchasing, organizing the hospital storeroom, guides and check lists for the purchase of food, equipment and supplies. It presents standards for hospital equipment and supplies as well as chapters on business administration, public aspects of hospital work, minimum hospital standards of various agencies, a glossary of hospital terms, and a directory of hospital and medical associations and national agencies serving hospital and allied fields.

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Malpractice: Diphtheria Mistakenly Diagnosed as Tonsillitis.—The plaintiff, "a believer in the profession of naturopathy," engaged the defendant, a naturopath, to treat his infant son for a condition which was diagnosed, it was alleged, as tonsillitis. The child had diphtheria, from which he died. Thereafter the plaintiff sued the defendant, and the trial court gave him judgment for $1,400. The defendant appealed to the Supreme Court of North Carolina.

The plaintiff's belief in naturopathy, said the court, would not prevent his recovering damages for the death of his son if he proved that the death of the child proximately resulted from the negligence and unskilful treatment of the defendant according to the method he held himself out to know and practice. The defendant was a graduate of the American School of Naturopathy. He had practiced in New York, apparently without a license, and in Florida, where he had obtained a certificate to practice. He had not obtained a license to practice in North Carolina. Nevertheless, he had been engaged in practice in that state and had been previously employed by the plaintiff to treat other members of his family on several occasions. In determining liability in a civil action for damages on the ground of negligence, the court said, the defendant was not required to possess the highest technical skill or the wide scientific knowledge and learning of the well recognized schools of medicine and surgery, or to exercise the utmost degree of care. He was required to exercise that degree of care, knowledge and skill ordinarily possessed by members of his school of practice. Although the defendant held himself out, and the plaintiff, on behalf of his infant son, consulted him, as a practitioner of naturopathy and not as a regular physician, the defendant claimed, the court said, to possess the skill requisite for diagnosis and treatment of disease, and in the performance of what he undertook to do he must be held to the degree of skill and care which he claimed to possess. A person who undertakes to treat the sick and holds himself out as competent to administer a certain kind or character of treatment undertakes to bring to his employment in each case a fair, reasonable and competent degree of skill and reasonable care and diligence in the exercise of his skill and in the application of his knowledge. He undertakes to exert his best judgment and give reasonable attention to the progress of the treatment he prescribes. He is answerable in damages for injuries proximately resulting from want of that degree of knowledge and skill ordinarily possessed by those of his system or method of practice, or from failure to exercise due care and diligence or to use his best judgment in the treatment of the case.

The defendant offered two witnesses, both naturopaths, to show that the treatment of the plaintiff's son, as testified by the defendant, was in keeping with the practice of naturopathy generally, and conformed to the teachings and practices of naturopathy in diseases of this kind. On objection by the plaintiff, this evidence was excluded, the court holding "as a matter of law that the witness was not an expert witness." The witnesses were graduate naturopaths and were licensed to practice naturopathy, respectively, in Virginia and in Florida. The trial court erred, said the Supreme Court, in ruling out this evidence. An "expert," the court said, has been defined as "one who is skilled in any particular art, trade or profession, being possessed of peculiar knowledge concerning the same." The term implies both knowledge from study and practical experience in the art or profession. The common law does not require that an expert witness shall be a person duly licensed to practice medicine. While the competence of a witness to testify as an expert is a question primarily addressed to the discretion of the trial court and its decision is ordinarily conclusive, this rule is subject to the qualification that, when the preliminary question of the competence of the witness is made to turn on a matter of law, it is subject to review. The witnesses should have been permitted to testify.

The fact that the defendant was engaged in treating patients in North Carolina without having obtained a license so to do was not evidence, in the opinion of the court, of negligence in the treating of the plaintiff's son. The question was not whether he was licensed or not but whether he exercised proper care in the treatment of the patient. If the defendant engaged in treating diseases in violation of the law, he was liable to indictment and on conviction to suffer the prescribed penalties. In a civil action, however, bottomed on the law of negligence, the failure to possess a state license was not material on the question of due care.

For the error committed by the trial court in refusing to permit the defendant's expert witnesses to testify, the Supreme Court reversed the judgment for the plaintiff and remanded the case for a new trial.—*Hardy v. Dahl (N. C.), 187 S. E. 788.*

Charitable Hospitals: Liability When Profit Results from Operation of Hospital.—The plaintiff was a pay patient in the defendant hospital, an institution organized not for profit. A nurse negligently placed a hot water bottle against the plaintiff's leg in such a manner as to cause a third degree burn. Thereafter, the plaintiff instituted suit against the hospital. The trial court, after the plaintiff had finished the presentation of his evidence, directed the jury to return a verdict in the defendant's favor. The plaintiff appealed to the district court of appeal, second district, division 2, California.

The by-laws of the defendant hospital corporation stated that it was organized not for profit. The evidence showed, however, that the hospital operated for profit a number of departments to which the public had access, such as a pharmacy, lunch counter and soda fountain, including magazines and toilet articles; that in 1935, the year in which the plaintiff was injured, the hospital realized a profit of $62,767; and that it cared for 7,672 patients, of whom only 191 were free patients. The evidence did not indicate that the plaintiff was aware of the charitable status of the hospital or that it claimed to be free from liability for negligence on the part of its employees. The general rule, said the court, applicable to persons receiving benefits from charitable institutions in California was well stated in *Stewart* v. *California Medical, etc., Ass'n,* 178 Calif. 418, 176 P. 46. In that case the court said:

> The true doctrine amounts to this: That where one accepts the benefit of a public or of a private charity, he exempts by implied contract the benefactor from liability for the negligence of the servants in administering the charity, if the benefactor has used due care in the selection of those servants. . . . The character of the institution is to be determined, not alone by the powers of the corporation as defined in its charter, but also by the manner of conducting the hospital. . . . In the instant case, we hold that the trial court was required to look, not only to the defendant's articles of incorporation and by-laws to determine the character of the hospital conducted by it, but also to the method of transacting the business of the corporation. Its finding that the hospital was in fact operated for profit is supported by the evidence, and we see no good reason for exempting the defendant from the liability incurred by other hospitals conducted for profit.

In the present case, said the district court of appeal, the trial court erred in refusing to submit to the jury the issue of plaintiff's claim that the hospital was in fact conducted for profit. The trial court should also have submitted to the jury under appropriate instructions the question of plaintiff's knowledge of defendant's claim to nonliability on account of its charitable activities. The court expressed its disinclination to hold that one who, without knowledge that a hospital claims to be a charitable institution and therefore exempt from liability, applies for admission and is received as a patient, paying the regular rates at which the hospital derives a profit, is without redress for injuries occasioned by negligence on the part of the employees of the hospital on the theory that the patient is accepting the benefits of charity from a benefactor.

The plaintiff further contended that he presented sufficient proof that defendant did not use due care in the selection of its employees to have that issue submitted to the jury. With this contention, the district court of appeal agreed. The director of the hospital's nursing service testified that the nurse causing the injury had submitted a written application for employment, but that the references therein had never been checked and that no inquiry was made of the bureau of nurses of the state department of health with respect to her standing. The chief of the bureau of registration of nurses of the state testified that the nurse had filed an application for registration as a nurse in California but that her registration was rejected on the ground that she was ineligible. This evidence, in the opinion of the

court, was sufficient to call for the submission to the jury of the question whether the defendant had used due care in employing the nurse who attended the plaintiff.

For the reasons stated, the judgment of the trial court for the hospital was reversed.—*England v. Hospital of the Good Samaritan (Calif.), 61 P. (2d) 48.*

Contracts: Validity of Agreements in Restraint of Professional Practice.—The plaintiffs, practicing physicians, conducted a medical center and clinic in Yates County, N. Y., under the name of the Foster-Hatch Medical Group. They entered into a contract of employment with the defendant, a physician, wherein he agreed not to engage in or practice his profession as a physician in the county of Yates except while in the employment or associated with the plaintiffs, without the written consent of the plaintiffs. If he violated this agreement, he was to pay the plaintiffs the sum of $10,000 as liquidated damages. After about two and one-half years of service with the plaintiffs, the defendant severed relationship with them and, without their consent, continued to practice in Yates County. The plaintiffs therefore instituted the present action to enjoin the defendant from practicing in violation of his agreement. The trial court dismissed the complaint, and the plaintiffs appealed to the supreme court, appellate division, New York.

Agreements, said the court, imposing restraints on the right of an employee to engage in competitive service after the termination of the contract of service are analogous to, and governed by, the same rules applicable to restrictive covenants in the sales of business and good will. It is manifest that a physician employed as an assistant to another must in the course of his duties become acquainted with the patients of his employer and acquire their confidence and good will. The contract in this case was drawn to provide against the business and good will of the plaintiffs being lost to them in case of the defendant's locating in Yates County after the severance of the employment. The defendant's establishing himself in Yates County for the practice of medicine was a deliberate choice on his part to disregard his agreement not to compete with his former employers. In such circumstances, a court of equity will extend the arm of injunction. Agreements permanently to refrain from the practice of a profession in defined localities have been sustained in many cases. The stipulation in the contract for liquidated damages in case of violation of the agreement does not oust a court of equity from jurisdiction to entertain an application for injunctive relief. The order of the trial court dismissing the complaint was therefore reversed. Thereafter, the defendant appealed to the Court of Appeals of New York which, without a written opinion, affirmed the order of the appellate division.—*Foster v. White (N. Y.), 290 N. Y. S. 394; 7 N. E. 710.*

Malpractice: Mistake in Diagnosis; Failure to Make a Wassermann Test.—The plaintiff consulted the defendant, a physician, because of a swelling of his left knee. The defendant made a diagnosis of sarcoma and applied a course of treatment that did not improve the condition. On the contrary, the skin over the swelling broke open and a cauliflower mass developed, which increased in size and discharged large quantities of pus. Another physician was consulted, who sent the plaintiff to a hospital, where roentgenograms and a Wassermann test were made and tissue from the diseased area was examined microscopically. Chiefly on the basis of a positive Wassermann reaction, the lesion at the knee was attributed to syphilis and diagnosed not as sarcoma but as a gumma. Antisyphilitic treatment was administered, followed by immediate improvement. The plaintiff continued, however, to suffer pain and his left leg remained crippled and stiffened. Subsequently the plaintiff sued the defendant, and the jury returned a verdict for the plaintiff for $25,000. The court thought the amount of the verdict excessive and entered judgment for $7,000. The defendant appealed to the Supreme Court of Michigan, where, because of an erroneous instruction given by the trial court, the judgment was reversed and the case remanded for a new trial. *Fortner* v. *Koch* (Mich.), 261 N. W. *762*; abstr. THE JOURNAL, Feb. *22*, 1936, page 651.

The second trial resulted in a judgment for the plaintiff for $5,500, from which the defendant appealed to the Supreme Court of Michigan. One of the contentions made on the second appeal was that, in the absence of any claim in the declaration that the defendant should have made a Wassermann test, the trial court erred in admitting evidence which tended to show that he failed to make the test. The testimony, said the Supreme Court, showed that the proper method of diagnosis in the case was not only to take the history of the patient but also to have a roentgenogram made, a blood test taken and a biopsy made. Failure of the declaration to state that it was the duty of the defendant to have the Wassermann test made was not fatal, in the opinion of the court. The defendant as a physician knew, or should have known, that this was one of the steps in arriving at a proper diagnosis in the case. The declaration, said the court, was sufficient. Finding no error, the judgment of the trial court was affirmed.—*Fortner v. Koch (Mich.), 269 N. W. 222.*

Malpractice: Surgical Forceps Left in Patient; Statute of Limitations.—One of the defendants, the surgeon in charge of the Harlan Hospital Association, Inc., performed an abdominal operation on the plaintiff's wife in February 1932. Two years and a half after the operation the patient evacuated from her rectum one half of a surgeon's forceps. A roentgenogram revealed that the other half of the forceps was still in her abdomen and a second operation was performed to remove it. Thereafter the husband sued the hospital and the surgeon to recover damages for the loss of the society and services of his wife and to recover the medical expense incurred by reason of the alleged negligence of the defendants. The trial court sustained a defense that the suit was barred by the statute of limitations, and the plaintiff appealed to the Court of Appeals of Kentucky.

In Kentucky, said the court, an action brought by a husband for injuries to his wife must be commenced within one year after the cause of action accrues, and the cause of action accrues at the time of the injury resulting in the loss of services or consortium. The plaintiff argued, however, that the cause of action did not accrue until it became known by him and his wife, or could have been known by the exercise of ordinary care, that the forceps were left in the abdomen of his wife. But, said the court, a cause of action accrues when a party has the right and capacity to sue, and his right of action is not suspended until such a time as he ascertains that he has a cause of action. Here the injury was the result of negligence in the original operation, and the action is predicated on that negligence. In answer to the plaintiff's contention that the cause of action was fraudulently concealed by the defendant, the court said that, the intent being controlling, fraudulent concealment is necessarily based on knowledge and not on what may be discovered by the exercise of ordinary care. The allegation, therefore, that the defendants knew, or by the exercise of ordinary care could have known, that the forceps were left in the patient's abdomen was not sufficient to show fraudulent concealment. According to the petition, the patient was injured when the first operation was performed, and the plaintiff was then deprived of her services and society, and the only thing that she or the plaintiff did not know was the means whereby the injury was inflicted. Clearly, the fact that she or he was not informed as to the way or means did not have the effect of suspending the one-year statute of limitations. The time of the injury itself is the controlling fact, and not the means by which the injury was inflicted. The judgment of the trial court for the defendants was therefore affirmed. —*Carter v. Harlan Hospital Ass'n (Ky.), 97 S. W. (2d) 9.*

Society Proceedings

COMING MEETINGS

American Physiotherapy Association, St. Paul, June 27-July 1. Miss Jefferson I. Brown, Tichenor Hospital School, Long Beach, Calif., Secretary.

American Urological Association, Minneapolis, June 29-July 1. Dr. Clyde L. Deming, 789 Howard Avenue, New Haven, Conn., Secretary.

Montana, Medical Association of, Great Falls, July 13-14. Dr. Thomas L. Hawkins, 50 North Main St., Helena, Secretary.

National Medical Association, St. Louis, Aug. 15-20. Dr. John T. Givens, 1108 Church St., Norfolk, Va., General Secretary.

Pacific Northwest Medical Association, Great Falls, Mont., July 8-10. Dr. C. W. Countryman, 407 Riverside Ave., Spokane, Wash., Secretary.

Rocky Mountain Medical Conference, Denver, July 19-21. Mr. Harvey T. Sethman, 1612 Tremont Place, Denver, Secretary.

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers in continental United States and Canada for a period of three days. Periodicals are available from 1926 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested). Periodicals published by the American Medical Association are not available for lending but may be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

Alabama Medical Association Journal, Montgomery

6: 317-348 (April) 1937

*Granuloma Inguinale: Differentiated from Lymphogranuloma Inguinale. J. U. Reaves, Mobile.—p. 317.

Anemia in Pregnancy. G. B. Greene, Birmingham.—p. 324.

Preparalytic and Postparalytic Management of Acute Anterior Poliomyelitis. W. W. Alexander, Florence.—p. 326.

Hay Fever in Alabama: Analysis of 100 Cases: II. C. K. Weil, Montgomery.—p. 329.

Inguinal Granuloma Differentiated from Lymphogranuloma.—Reaves believes that inguinal granuloma and inguinal lymphogranuloma tend to affect unclean persons; this tendency, combined with the chronicity of the diseases, renders their cure difficult. The existence of other diseases with similar lesions adds to the problem. In one of his cases of inguinal granuloma the disease persisted for twenty-three years before an ultimate cure was established, and at no time was there involvement of the lymph nodes. Inguinal lymphogranuloma, a disease of the lymph nodes caused by a filtrable virus which can be transmitted to several of the lower animals, is of venereal origin and is frequently classified as the fourth venereal disease. Frei and Hoffman distinguish two periods of incubation. One is from the time of the infecting coitus to the appearance of the primary lesion; the other is from the time of the infecting coitus to the onset of the swelling of the inguinal node. The second period varies from ten days to a maximum of six weeks, with an average duration of from two to three weeks. The initial lesion is so mild that it often goes unnoticed by the patient and is rarely observed by the physician. It may be present as a nodular, papular or herpetiform lesion, or it may appear as an intra-urethral erosion simulating gonorrhea.

American Journal of Cancer, New York

29: 651-870 (April) 1937

Dissemination of Glioma by Extension at a Distance. R. A. Groff, Philadelphia.—p. 651.

*Relative Incidence of Oophorectomy in Women With and Without Carcinoma of the Breast. W. E. Herrell, Rochester, Minn.—p. 659.

Pinocytosis by Malignant Cells. W. H. Lewis, Baltimore.—p. 666.

Development of Tumors in Female Mice Treated with 1:2:5:6-Dibenzanthracene and Theelin. Isabella H. Perry and L. L. Ginzton, San Francisco.—p. 680.

Fluorescence Spectrum of 3:4-Benzpyrene. I. Hieger, London, England.—p. 705.

Hodgkin's Disease of Lung. M. J. Fein and L. H. Meeker, New York.—p. 715.

Pleomorphic-Cell Sarcoma of Gallbladder: Report of Two Cases. A. B. Kagins, Chicago.—p. 722.

Paget's Disease Associated with Hypernephroma. H. Charache, New York.—p. 729.

Coexistence of Mammary Carcinoma and Axillary Tuberculous Lymphadenitis. A. H. Potter, Springfield, Ohio.—p. 733.

Statistics on Morbidity and Mortality from Cancer in the United States. L. I. Dublin, New York.—p. 736.

Oophorectomy and Carcinoma of the Breast.—Herrell finds that of 1,906 patients with carcinoma of the breast only twenty-eight had undergone complete oophorectomy before mammary carcinoma was found. If those cases are eliminated in which oophorectomy was performed so short a time before the diagnosis of carcinoma of the breast that the procedure could hardly be said to influence the development of the disease, that is, less than three years before, the incidence of castration or complete oophorectomy falls to the low point of 1 per cent. The incidence of complete oophorectomy or castration was approximately ten times as great among the 1,011 non-cancer bearing women as in the group of women with carcinoma of the breast. The accumulating evidence is that ovarian secretions do in some way play a definite part in the development of mammary tumors, not only in mice but also, as these studies strongly suggest, in women. The genetic factor is perhaps the most baffling aspect of the problem as it bears on the human being and indeed, in that bearing, seems beyond control. Yet, the ovarian functions are factors in the internal environment of the individual and, as these results indicate, probably play a definite part in the incidence of mammary cancer; these factors are, furthermore, controllable. The study supplies excellent indication that the ovarian rôle may be a definite one in human beings, as it is in animals whose genetic factors can be more or less controlled at will. In recent years castration by radiation combined with surgical operation has been regarded with considerable interest by some in the treatment of mammary carcinoma. The time to combat cancer is not in the inoperable stage but, if possible, before it develops, and this can be accomplished only when more is known concerning the factors which underlie the genesis of the disease.

Archives of Dermatology and Syphilology, Chicago

35: 767-1010 (May) 1937

Xanthoma of Skin and Larynx Associated with Carcinoma of Stomach and Regressive Xanthoma of Pons. F. D. Weidman and H. W. Schaffer, Philadelphia.—p. 767.

Position of "Pseudodiabetic Xanthoma" Among Lipoid Disturbances of Skin (Urbach). F. D. Weidman, Philadelphia.—p. 815.

*Treatment of Epithelioma of Lip by Electrodesiccation: Technic and Preliminary Report of Results During Past Five Years. H. Morrow, H. E. Miller and L. R. Taussig, San Francisco.—p. 821.

Purpura: Classification and Treatment, with Especial Reference to Treatment with Snake Venom. S. M. Peck, N. Rosenthal and L. Erf, New York.—p. 831.

Herpes Zoster and Herpes Simplex: Report of Case in Which Both Appeared Simultaneously; Analysis of Their Etiology. W. H. Goeckerman and L. F. X. Wilhelm, Los Angeles.—p. 868.

Fixed Drug Eruptions. E. W. Abramowitz, New York, and M. H. Noun, Des Moines, Iowa.—p. 875.

*Relation of Diet to Cutaneous Infection: Study of Influence of Varying Carbohydrate and Fat Intakes and of Fasting on Experimental Pyogenic Cutaneous Infections in Dogs, with Comparative Determinations of Glycogen Content of Skin and Liver. D. M. Pillsbury and T. H. Sternberg, Philadelphia.—p. 893.

Sternal Puncture: Diagnostic Aid in Leukaemia Cutis; Possible Aid in Differentiating Lymphoblastomas. L. B. Kingery, E. E. Osgood and A. H. Illge, Portland, Ore.—p. 910.

Nodular Diffuse Scleroderma. J. Butler and C. W. Laymon, Minneapolis.—p. 919.

Bile Pigment Metabolism in Diseases of Skin. J. F. Burgess and I. M. Rabinowitch, Montreal.—p. 932.

Electrodesiccation of Epithelioma of Lip.—Morrow and his co-workers have treated epithelioma of the lip by means of curettage followed by electrodesiccation for the last five years. Twenty-three of fifty-four patients treated in the clinic and thirty-one of eighty-five of those treated at the office could not be traced. Of the fifty-four office patients traced, forty-three were well and had no evidence of disease from six months to five years after treatment. Of the twenty-six clinic patients traced, twenty-three were apparently cured. A number of the patients classified as well have had recurrences which responded to the same form of treatment. Others have had new lesions on a different portion of the lip. The clinical and cosmetic results are apparently as good as those which follow surgical therapy. This method of treatment is recommended because of its effectiveness, the ease with which it can be applied and its small expense to the patient.

Diet and Cutaneous Infection.—Pillsbury and Sternberg observed the reaction of dogs to the intradermal injection of broth suspensions of living staphylococci and streptococci. The dogs were divided into groups receiving low carbohydrate, high carbohydrate or high fat diets or fasting. The cutaneous infections were in general definitely more severe in animals on a high carbohydrate intake than in those on a low carbohydrate or a high fat diet and in fasting dogs. Representative determinations of the sugar content of the blood indicated that no significant variations from normal occurred. In six of eight animals given a high fat diet, evidence of acidosis developed; the infections noted in these animals with one exception were mild. The glycogen content of the skin showed but slight response to variations in the diet, and there was no evidence indicating that it was of any great importance in the metabolism of the skin or in the organism as a whole.

Journal of Clinical Investigation, New York

16: 279-478 (May) 1937

Variations in Permeability of Red Blood Cells in Man, with Particular Reference to Conditions Obtaining in Pernicious Anemia. O. Bang and S. L. Ørskov, Copenhagen, Denmark.—p. 279.
*Influence of Muscular Exercise on Blood Sugar Concentrations. Florence H. Smith and K. A. Smith, Chicago.—p. 289.
Clinical Studies of Blood Volume: I. Clinical Application of Method Employing Azo Dye "Evans Blue" and Spectrophotometer. J. G. Gibson 2d and W. A. Evans Jr., Boston.—p. 301.
Id.: II. Relation of Plasma and Total Blood Volume to Venous Pressure, Blood Velocity Rate, Physical Measurements, Age and Sex in Ninety Normal Humans. J. G. Gibson 2d and W. A. Evans Jr., Boston.—p. 317.
*Relation of Thyroid and Parathyroid Glands to Calcium and Phosphorus Metabolism: Study of Case with Coexistent Hypoparathyroidism and Hyperthyroidism. O. Cope and G. A. Donaldson, Boston.—p. 329.
Gastro-Intestinal Studies: VII. Excretion of Xylose in Pernicious Anemia. O. M. Helmer and P. J. Fouts, Indianapolis.—p. 343.
Significance of Sodium and Potassium Content of Muscle Tissue and Relation of Amount of Edema Fluid in Muscle to Level of Serum Protein in Experimental Nutritional Edema. W. B. McClure and Winifred Franz Hinman, Chicago.—p. 351.
Composition of Human Gallbladder Bile and Its Relationship to Cholelithiasis. J. G. Reinhold, L. K. Ferguson and A. Hunsberger Jr., Philadelphia.—p. 367.
Concerning Naturally Occurring Porphyrins: V. Porphyrins of Feces. C. J. Watson, Minneapolis.—p. 383.
Pathology of Pregnancy Toxemias. H. M. Zimmerman and J. P. Peters, New Haven, Conn.—p. 397.
*Renal Physiology in Lobar Pneumonia. L. E. Farr and T. J. Abernethy, New York—p 421.
Studies of Circulation in Pernicious Anemia. H. J. Stewart, N. F. Crane and J. E. Deitrick, New York.—p. 431.
Determination of Blood Ascorbic Acid. M. Pijoan and F. Klemperer, Boston.—p. 443.
Neutralization Tests in Poliomyelitis: Serums Taken During Acute and Convalescent Stages of Disease and Tested with Passage Virus and Strain Isolated During the 1935 New York City Outbreak. M. Brodie, A. E. Fischer and M. Stillerman, New York.—p. 447.
Macrocytic Anemia in Pregnant Women with Vitamin B Deficiency. Katharine O'Shea Elsom, with technical assistance of A. B. Sample, Philadelphia.—p. 463.
Chronaximetric Examinations in B Avitaminosis During Pregnancy. F. H. Lewy, Philadelphia.—p. 475.

Muscular Exercise and Blood Sugar.—The Smiths determined the effect of exercise on glycosuria and glycemia in twelve cases of diabetes mellitus treated with insulin, in four of diabetes mellitus treated without insulin, in three of renal glycosuria, in two of hypotension, in one patient with glycosuria of pregnancy, in one obese patient, in one with epilepsy and in three normal individuals. Exercise of sufficient intensity and duration, they found, will lower the postprandial blood sugar in controlled diabetes mellitus treated with or without insulin, in renal glycosuria, in hypotension, in obesity and in normal subjects. Exercise in the uncontrolled case of diabetes, in the amounts performed in these experiments, does not have a noticeable effect in lowering the postprandial blood sugar. Exercise seems to have the greatest effect in lowering the postprandial blood sugar in the irregularly controlled case of diabetes, when measured by the difference in the resting and exercising blood sugar levels at the end of exercise, and by the resulting clinical symptoms at this time. Exercise of the intensity performed in these experiments is not sufficient to lower the blood sugar below normal fasting levels in nondiabetic subjects.

Thyroid and Parathyroid in Calcium and Phosphorus Metabolism.—Cope and Donaldson studied the calcium and phosphorus metabolism in a patient with recurrent thyrotoxicosis and postoperative parathyroid tetany. When the metabolic rate was maintained within normal limits with iodine medication, the calcium and phosphorus ratios were characteristic of parathyroid tetany. When hyperthyroidism was present, a marked increase in the negative balance of calcium and phosphorus beyond normal limits was found, even though signs of diminished parathyroid activity continued. Increased thyroid activity was followed by a rise of the subnormal blood serum calcium level toward normal and a decrease in the signs of tetany. The reverse occurred with a decrease in thyroid function. An acute infection of the upper part of the respiratory tract was associated with an increase in the amount of clinical tetany and also with a spontaneous remission of the thyrotoxicosis. Because of the probably continued subnormal activity of the parathyroid it is concluded that the changes of calcium and phosphorus metabolism were due to the changes in thyroid function. The relation of the parathyroid, thyroid, anterior pituitary and adrenal cortical glands in calcium metabolism is discussed.

Renal Physiology in Lobar Pneumonia.—Farr and Abernethy observed twenty-eight patients, admitted consecutively to the Rockefeller Institute Hospital for treatment of pneumonia, for periods up to six months. On admission a urea clearance test was done; the following day a sediment count was performed. Urea clearances were repeated every three days until crisis and on the day of crisis. During the acute illness, twelve hour clearances were done. Another urea clearance was done five days after crisis and at the time of discharge. Following discharge, urea clearances were done on the patients in the outpatient clinic once a month until renal function had been normal for two months. Sediment counts were done on the first and on the sixth day after crisis. Quantitative estimations of urinary protein by the method of Shevky and Stafford were performed daily during the febrile period and as long thereafter as protein was present. Blood pressure determinations were done daily, and retinal examinations were made on each patient during the acute illness as well as in convalescence. None of the patients gave any history of preexisting renal disease. During the febrile period the average urea clearance for eleven patients in the age group 10 to 29 years was elevated to 147 per cent of normal. The average for four patients from 30 to 39 years of age was 111.8 per cent of normal; of five patients from 40 to 49 years of age, 97.7 per cent normal, and of five patients from 50 to 65 years of age, 82.6 per cent of normal. The clearances done immediately after crisis and while the patient was still in the hospital did not show a rapid return to normal. At no time during the acute illness did any of the younger patients have a urea clearance below 110 per cent of normal. In the age group 30 to 40 years there was only moderate hyperfunction during the first ten days of the disease, but in no instance was hypofunction noted. In the age group 40 to 50 years there was no increase of the urea clearance during the acute and convalescent periods of the illness. The clearance returned to an average value for this group in about three months. In the oldest group there was no definite shift in the clearance below normal minimum, but the values during the acute illness were in general somewhat below normal average. The blood urea nitrogen in all but two of the patients at the time of admission was within normal limits. The amount of protein lost in the urine by these patients during the febrile period was negligible. The majority excreted less than 0.1 Gm. of protein daily throughout their entire hospital stay. In no instance was the number of red blood cells excreted in twelve hours greater than the normal values defined by Addis. Casts, however, were uniformly increased in number, with the hyaline type predominating. When the patients were extremely ill, the proportion of granular casts increased. In the two patients who died, the differential cast count revealed 100 per cent granular casts with a large number of casts excreted in both instances. There was no significant alteration in the blood pressure accompanying the alteration in the urea clearance. In general, the blood pressure tended to be a little below normal during the febrile period of the disease, returning to the usual normal levels during convalescence. Daily measurements of fluid intake and output were made on these patients and no deviations from the expected relations were noted. There was no relation between fluid intake and clearance, or between fluid intake and the number of observed formed elements in the urine. Sodium chloride in therapeutic doses had no demonstrable effect on the urea clearance. There was no demonstrable difference between the effects of different pneumococcus types on renal function. Nor did the early and effective use of therapeutic serums have any demonstrable effect on the renal function during the acute illness or during serum disease.

Journal Industrial Hygiene & Toxicology, Baltimore

19: 155-188 (April) 1937

Occurrence of Silicosis in Manufacture of Silicon Alloys. T. Bruce, Stockholm, Sweden.—p. 155.
Further Studies of Total Pulmonary Capacity and Its Subdivisions in Cases of Pulmonary Fibrosis. N. L. Kaltreider, W. W. Fray and H. Van Zile Hyde, Rochester, N. Y.—p. 163.
Quartz in Industrial Dusts and Deposits on Human Lung Tissues: X-Ray Diffraction, Chemical and Spectrographic Studies. V. Hicks, Olive McElroy and Mary E. Warga, Pittsburgh.—p. 177.

Journal-Lancet, Minneapolis

57: 179-238 (May) 1937

*Clinical Changes Produced by Diarrhea and Their Restitution. L. F. Hill, Des Moines, Iowa.—p. 179.
Observations on Pneumonia in Childhood. E. D. Anderson, Minneapolis. —p. 184.
Asphyxia Neonatorum. R. E. Swanson, Minneapolis.—p. 186.
The Management and Feeding of the Premature Infant. A. V. Stoesser, Minneapolis.—p. 190.
A Few Common Dermatoses of Infancy and Childhood. C. W. Laymon, Minneapolis.—p. 197.
The Trend of Mortality in Insured Children. K. W. Anderson, Minneapolis.—p. 202.
Prevention of Whooping Cough. E. J. Huenekens, Minneapolis.—p. 207.
Growing Feet. E. T. Evans, Minneapolis.—p. 209.
State Medicine in Minnesota. C. B. Young and J. A. Myers, Minneapolis.—p. 212.
*Vitamin C and Tuberculosis. C. K. Petter, Oak Terrace, Minn.—p. 221.
The Cultural Side of a Doctor's Life. J. G. Parsons, Crookston, Minn. —p. 224.

Clinical Changes Produced by Diarrhea.—Hill declares that clinical changes result from diarrhea only when the diarrhea is of a severe type. Mild types of diarrhea produce little or no evidence of illness beyond fretfulness. The symptoms produced by a severe type of diarrhea are usually described under the terms of "alimentary intoxication" or "intestinal toxemia." The clinical changes entering into the picture of alimentary intoxication are subdivided into athrepsia, anhydremia and dehydration, acidosis and toxicosis, and are discussed separately. The therapeutic indications for restitution of the clinical changes brought about by severe diarrhea are the replacement and maintenance of the fluid and mineral balance of the blood plasma and tissues of the body. Protein milk, acidified milk and raw apple are suggested as measures to be used in dietary management.

Vitamin C and Tuberculosis.—Petter administered vitamin C in a chocolate-malt-milk base. The preparation contains 50 mg. of chemically pure cevitamic acid and 7½ grains (0.5 Gm.) of dibasic calcium phosphate in two heaping teaspoonfuls, or 20 Gm. This amount was given three times daily in 7 ounces (200 cc.) of milk. The preparation as given in milk supplied 150 mg. of vitamin C daily and added 654 calories to the regular diets. Of the forty-nine adults treated, thirty showed definite improvement, in twelve there was no change, and seven were definitely worse. Twenty-one children showed improvement in weight and general condition. Elimination of cevitamic acid was found to be below normal in cases of advanced tuberculosis and was brought up to normal by feeding this vitamin in the foregoing doses.

Medical Annals of District of Columbia, Washington

6: 87-116 (April) 1937

Present Knowledge on Rhythm of Human Fertility: Some Biologic and Physiologic Considerations Affecting Its Practical Application to Problems of Sterility and Birth Control. P. Willson, Washington.—p. 87.
Arteriosclerosis. J. F. Elward and P. Morgenstern, Washington.—p. 99.
Significance of Vascular Changes in Retina. B. Rones, Washington.—p. 104.
Minimizing of Psychic Trauma in Induction of Anesthesia in Children. E. B. Macon, Washington.—p. 107.
Legal Responsibility Incident to Diagnosis and Treatment. F. A. Fenning, Washington.—p. 108.

Military Surgeon, Washington, D. C.

80: 331-410 (May) 1937

Physical Environment and Effective Man Power. C. A. Mills.—p. 331.
Neurilenoma (Schwannoma): Case Report. H. P. Makel.—p. 338.
Bilateral Renal Tuberculosis: Case Report. C. Ferguson.—p. 341.
Garbage Racks in Control of Flies. J. H. Forsee.—p. 344.
Regional Ileitis. F. J. Vokoun.—p. 347.
American World War Hospital Center in France. T. J. Burrage.—p. 352.
Handling of Extensive Outbreak of Athlete's Foot Aboard Ship. W. S. Sargent.—p. 360.
Dentistry in the Army. J. A. Boston.—p. 365.
Syphilitic Meningitis Simulating Acute Epidemic Meningitis: Case. M. M. Green and R. J. Hoagland.—p. 366.
Spectral Roentgenology. M. L. Reif.—p. 369.
Time and Money Saved in Treatment of Hay Fever. G. D. McGrew. —p. 371.
Typhoid Fever Aboard the Freighter "Victoria City." J. S. Bowen and C. H. Halliday.—p. 374.
Marching Efficiency. A. Steindler.—p. 377.
Postarsenical Hemorrhagic Encephalitis: Report of Case. C. G. Blitch. —p. 385.

Minnesota Medicine, St. Paul

20: 269-344 (May) 1937

Functions of Spleen and Thymus. L. Asher, Berne, Switzerland.—p. 269.
Interprofessional Relations: Is There a Policy? C. H. Rogers, Minneapolis.—p. 274.
Comparative Statistical Ten Year Review of Cesarean Sections Performed at Ancker Hospital. A. G. Schulze, St. Paul.—p. 282.
Episcleritis and Its Relation to Disease of Female Pelvic Organs. W. L. Benedict, Rochester.—p. 287.
Pilonidal Sinus. W. G. Strobel, Duluth.—p. 292.
Duodenojejunostomy for Duodenal Stasis. George Earl, St. Paul.—p. 297.
New Anal Retractor. H. E. Hullsiek, St. Paul.—p. 300.

Nebraska State Medical Journal, Lincoln

22: 165-204 (May) 1937

Diseases of Thyroid Gland. C. H. Arnold and L. V. Gibson, Lincoln. —p. 169.
The Surgical Treatment of Hypertension. J. Dewey Bisgard, Omaha.—p. 174.
Results of Treatment of Lobar Pneumonia. A. L. Smith, Lincoln.—p. 178.
Peripheral Vascular Disease: IV. Diabetic Gangrene. C. W. McLaughlin Jr., Omaha.—p. 182.
Prontosil and Prontylin: Case Report. J. D. McCarthy, Omaha.—p. 186.
Meckel's Diverticulum Containing Aberrant Gastric Mucosa and Pancreatic Tissue. F. C. Hill and L. Cohen, Omaha.—p. 187.
Botulism: Report of Two Cases. F. L. Krampert, Imperial.—p. 189.
Radical Treatment of Carbuncles. R. L. Gorrell, Clarion, Iowa.—p. 190.

New England Journal of Medicine, Boston

216: 727-772 (April 29) 1937

*Syndrome Characterized by Osteitis Fibrosa Disseminata, Areas of Pigmentation and Endocrine Dysfunction, with Precocious Puberty in Females: Report of Five Cases. F. Albright, A. M. Butler, A. O. Hampton, Boston, and Patricia Smith, Baltimore.—p. 727.
Treatment of Cardiovascular Emergencies. J. M. Faulkner, Boston.—p. 747.
Heart Sounds in Pulmonary Tuberculosis. A. S. Kennedy, Hamilton, Ont.—p. 751.

216: 773-820 (May 6) 1937

Importance of Detail in the Art of the Care of the Patient. O. H. P. Pepper, Philadelphia.—p. 773.
Urologic Complications of Cancer of Rectum. J. D. Barney and S. B. Kelley, Boston.—p. 779.
Treatment of Ambulatory Diabetic Patient with Protamine Zinc Insulin. J. Rosenthal and Helen E. Finkelstein, Boston.—p. 784.
Study of Efficiency of Carbon Microphone Hearing Aids. F. L. Weille, Boston, and B. H. Billings, Cambridge, Mass.—p. 790.

Osteitis Fibrosa and Precocious Puberty.—Albright and his colleagues report five cases of a syndrome characterized by (1) bone lesions which have a marked tendency to be unilateral and which show osteitis fibrosa on microscopic examination, (2) brown nonelevated pigmented areas of the skin which tend to be on the same side as the bone lesions and (3) an endocrine dysfunction which in the female is associated with precocious puberty. The multiple bone cysts have a distribution suggesting a relation to nerve roots or to an embryologic defect in the myotomes. The precocity is unusual in that it does not lead to sterility or to other endocrine disturbances. Certain circumstantial evidence, especially the fact that the precocity apparently does not occur in males, suggests the hypothesis that this part of the syndrome is due to a disturbance in the follicle-stimulating hormone of the anterior pituitary. Small testes with normal secondary sex characteristics were present in the one case occurring in a male. The bone lesions consist of multiple circumscribed areas of what appears to be osteitis fibrosa with normal bone elsewhere. The term osteitis fibrosa disseminata is suggested to differentiate the condition from osteitis fibrosa generalisata (hyperparathyroidism) and osteitis fibrosa localisata (solitary bone cyst). Several cases observed elsewhere were confused with hyperparathyroidism. The bone manifestations, however, differ from hyperparathyroidism in that they are spotty rather than generalized and are not attended by changes in calcium and phosphorus metabolism. The suggestion is made that the endocrine disturbance as well as the bone lesions and pigment spots may be manifestations of an underlying neurologic disturbance or of an embryologic defect.

Philippine Islands Med. Association Journal, Manila

17: 133-196 (March) 1937

Closed Intrapleural Pneumolysis: Jacobaeus Operation: Preliminary Report. M. Cañizares, Manila.—p. 133.
Can We Prevent Effusion During Pneumothorax Treatment? M. Quisumbing, San Pablo, Laguna.—p. 143.
Typhus Fever in the Philippines: I. Weil-Felix Reaction of 500 Febrile Cases. A. P. de Roda, Manila.—p. 147.
Rickettsia-like Bodies in Guts of Head Lice from Typhus Cases: Preliminary Report. E. Y. Garcia, Manila.—p. 157.
Military Medicine. V. Luna, Manila.—p. 161.

Physiological Reviews, Baltimore

17: 153-334 (April) 1937

The Male Sex Hormones. F. C. Koch, Chicago.—p. 153.
Rods, Cones and Chemical Basis of Vision. S. Hecht, New York.—p. 239.
Formation and Destruction of Red Blood Cells. R. Isaacs, Ann Arbor, Mich.—p. 291.
Nature of Uterine Contractility: Survey of Recent Trends. S. R. M. Reynolds, Brooklyn.—p. 304.

Public Health Reports, Washington, D. C.

52: 427-464 (April 9) 1937

Treatment of Blacktongue with Preparation Containing "Filtrate Factor," and Evidence of Riboflavin Deficiency in Dogs. W. H. Sebrell, R. H. Onstott and D. J. Hunt.—p. 427.
Labile Bacterial Antigens and Methods of Preparing and Preserving Them. S. Mudd, E. J. Czarnetzky, H. Pettit and D. Lackman.—p. 434.
Age of Gainful Male Workers in Different Geographic Regions of the United States, 1920 and 1930: Studies on the Age of Gainful Workers Number Two. W. M. Gafafer.—p. 437.

52: 465-506 (April 16) 1937

*Studies on Trichinosis: I. Incidence of Trichinosis as Indicated by Postmortem Examination of 300 Diaphragms. M. C. Hall and B. J. Collins.—p. 468.
Hosts of Immature Stages of Pacific Coast Tick Dermacentor Occidentalis Neum (Ixodidae). G. M. Kohls.—p. 490.

52: 507-536 (April 23) 1937

Radio Pratique: Pratique by Wireless in Lieu of Quarantine Inspection for Passenger Vessels. C. V. Akin.—p. 507.
Studies on Trichinosis: II. Some Correlations and Implications in Connection with Incidence of Trichinae Found in 300 Diaphragms. M. C. Hall and B. J. Collins.—p. 512.

52: 537-586 (April 30) 1937

Sickness Among Male Industrial Employees During Final Quarter of 1936 and the Year as a Whole. D. K. Brundage.—p. 537.
Studies on Trichinosis: III. Complex Clinical Picture of Trichinosis and Diagnosis of Disease. M. C. Hall.—p. 539.

Trichinosis.—Hall and Collins examined 300 diaphragms from patients representing practically all parts of the United States. With these cases as a basis, they expect to be able to study the correlations of the incidence of trichinae with such data as military or civilian status, association with land and sea, high and low economic-social status, mental derangement associated with long hospitalization, and the absence of any such derangement associated with prolonged hospitalization, as well as to study correlations with sex, race and age. Their study of incidence by the use of the microscopic and digestion-Baermann technics affords an opportunity to check the value and limitations of each technic and to make a tentative estimate of the probable error in previous studies. If they take their unweighted average of approximately 12.5 per cent (on the basis of 1,778 cases reported up to the present time and the forty-one cases in their 300 diaphragms examined), a figure which for several reasons is obviously too low, it implies that one out of every eight persons in our population of 130,000,000 persons is infested with trichinae, or approximately 16,000,000 persons above the age of infancy, provided the incidence in cadavers examined gives the incidence for the general population. The United States, so far as data are available, has the greatest problem in trichinosis of any country in the world, even though the supposed incidence in some other countries is greater than it is thought to be. Meat inspection of a quality equivalent to that of the federal meat inspection system should be extended to all meat produced in the United States. The swine sanitation system should be used much more widely by hog raisers. The campaign to educate the public against the use of any raw pork, or of any pork products customarily eaten uncooked that do not originate in establishments under federal inspection, should be more intensive.

South Carolina Medical Assn. Journal, Greenville

33: 73-110 (April) 1937

The Roper Hospital Cancer Clinic: Review of a Year's Work. T. M. Peery, Charleston.—p. 73.
Symptoms Calling for Anorectal Examination, and a Brief Description of Different Steps. W. H. Poston, Pamplico.—p. 77.

Southern Medical Journal, Birmingham, Ala.

30: 355-450 (April) 1937

The Function of the Otolaryngologist. M. F. Arbuckle, St. Louis.—p. 355.
Duplications of Alimentary Tract. W. E. Ladd, Boston.—p. 363.
Electrocardiograms Similar to Those of Coronary Thrombosis, with Especial Reference to Those Obtained in Pulmonary Infarction. W. S. Love Jr. and G. W. Brugler, Baltimore.—p. 371.
Tumors of the Chest Wall. G. A. Stewart, Baltimore.—p. 375.
Sarcoma of the Choroid. K. W. Cosgrove, Little Rock, Ark.—p. 379.
One Stage Abdominoperineal Resection for Carcinoma of Rectum. S. McLanahan, Baltimore.—p. 382.
Common Errors in Diagnosis and Treatment of Cancer of the Colon and Rectum. F. W. Rankin, Lexington, Ky.—p. 386.
Roentgen Therapy in Carcinoma of Rectum. E. A. Merritt, Washington, D. C.—p. 392.
*Associated Incidence of Tuberculosis and Malignant Tumors, with Especial Reference to Intrathoracic Tuberculosis and Carcinoma of Alimentary Canal. R. M. Moore and M. P. Neal, Columbia, Mo.—p. 395.
Childhood Type Tuberculosis: Some Problems of Public Health Administrator. W. B. Grayson and W. M. Smith, Little Rock, Ark.—p. 400.
Anterior Pituitary Insufficiency (Simmonds' Disease): Report of Case. S. F. Ravenel, Greensboro, N. C.—p. 403.
Disturbances of Pituitary Function. T. B. Futcher, Baltimore.—p. 405.
Human Sterility. P. Titus, Pittsburgh.—p. 410.
Diseases of the Esophagus from the Point of View of the Internist. O. H. P. Pepper, Philadelphia.—p. 418.
Occupational Dermatoses: Their More Uniform Management. C. G. Lane, Boston.—p. 422.
Clinical Manifestations of Virus Diseases of Central Nervous System. D. C. Wilson, University, Va.—p. 427.
Fracture Dislocations of Upper End of Humerus. G. W. Leadbetter, Washington, D. C.—p. 433.
Correlation of Clinical and Anatomic Studies of Vesical Neck. R. E. Van Duzen and W. W. Looney, Dallas, Texas.—p. 436.
Medical Education in New Spain. W. B. Blanton, Richmond, Va.—p. 439.

Tuberculosis and Malignant Tumors.—In 354 consecutive necropsies on individuals 1 year of age or older Moore and Neal found seventy-three instances of malignant growths and eighty-nine of active tuberculosis. In these there were twenty cases in which active tuberculosis and a malignant tumor existed concurrently. If a comparison is made between this double lesion group and the total number of cases in each of the two diseases, it is found that a malignant neoplasm also was present in 22.47 per cent of this series with active tuberculosis, while active tuberculosis was present in 27.4 per cent of those with a malignant growth. Because of the high cancer incidence in this series, 20.62 per cent, the percentage relationships are unquestionably out of proportion for the general population. Comparison reveals that the incidence of active tuberculosis and malignant tumors, each as an entity, was higher in the female than in the male, and consequently the incidence of the double lesion group was greater in the female. The incidence of the double lesion as well as that of malignant manifestation in general was appreciably higher in the white than in the Negro race. The seventy-three cases of malignant growths were found to be carcinoma fifty-three, sarcoma ten, hypernephroma four, mesothelioma two, Hodgkin's disease two, malignant glioma one, and malignant thymoma one. The concomitant occurrence of active tuberculosis and carcinoma, particularly when the patient is 35 years of age and older, in many cases is due to the breakdown of a previously existing inactive or latent tuberculous lesion rather than to a reinfection. The high incidence of association, 21.42 per cent, of active pulmonary and tracheobronchial lymph node tuberculosis with carcinoma of the esophagus and stomach is due in the majority of such cases to the activation of a latent tuberculous focus as a result of the cachexias, toxemias and malnutrition that develop from cancers at these sites. The unaccountable rapidity and unfavorable clinical progress of many cases of cancer is due to the activation of a latent tuberculous lesion. In the reactivation of tuberculosis in elderly patients, a malignant condition is to be considered a factor in more than 20 per cent of the cases. There is almost a four times greater incidence of active tuberculosis, with a concurrent malignant neoplasm, in the age group above 35 than in that below, the respective percentages being 7.25 and 1.88.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

British Journal of Radiology, London

10: 293-364 (April) 1937

Roentgenographic Image in Diagnosis of Lesions of Bone. C. G. Sutherland, Rochester, Minn.—p. 295.

The Commonwealth X-Ray and Radium Laboratory, University of Melbourne. M. J. Holmes and C. E. Eddy.—p. 318.

Tomography, by Means of Simple Attachment to Potter-Bucky Couch. E. W. Twining.—p. 332.

Method for Routine Purification of Radon. T. H. Oddie.—p. 348.

Radium Therapy of Malignant Tumors of Superior Air Passages. Torrigiani and Palumbo.—p. 360.

British Medical Journal, London

1: 695-738 (April 3) 1937

*Angina Innocens: Clinical Study. G. Bourne.—p. 695.

Prevention of Disease in Industry. D. Hunter.—p. 700.

Epidemic Catarrhal Jaundice in School Children. A. A. Lisney.—p. 703.

External Version for Breech Presentations. C. Mehta.—p. 706.

New Stabilizer for Schick Toxin. A. T. Glenny and Muriel F. Stevens.—p. 709.

Angina Innocens.—Bourne suggests the term angina innocens for the condition usually labeled pseudo-angina. Angina innocens is descriptive of the cardiac and at the same time the innocent nature of the pain. It is associated with no definite cardiac disease, is apparently of functional origin and has a favorable prognosis. A study of thirty-eight patients suffering from such pain, who have been under investigation for varying periods since 1929, is given. Simultaneously a study of a large number of patients complaining of the other forms of cardiac pain has served as a background, against which the present syndrome has stood out more clearly with the passage of time. Of the thirty-eight patients, twenty-two were females and sixteen males. The ages at which the syndrome manifested itself were between 12 and 65 years. In the past history two facts stand out: the high incidence of rheumatic infections and tonsillitis, and the frequency of psychologic disorders. In addition to the precordial pain the other symptoms were as follows: Marked lassitude was complained of in thirty cases, shortness of breath of a not very pronounced degree occurred in twenty-nine cases, orthopnea was found in seven cases, palpitation was complained of by twenty-nine patients, giddiness was a symptom in twenty-seven cases, faintness, without loss of consciousness, in seven, and thirteen patients gave a history of fainting. Twenty-nine patients complained of a sense of left-sided constriction. Dyspepsia was present in fourteen cases and in several appeared to be a predisposing or trigger symptom, for successful treatment of the dyspepsia generally led to considerable diminution in the severity of the cardiac pain. In no case, however, could it be said that the dyspepsia by itself was the cause of the cardiac pain. In thirty-three of thirty-eight cases the pain was felt on the left side of the chest, either over the apex of the heart or higher over the precordium. The pain of angina of effort is characteristic, and a careful history will in all cases differentiate the condition from angina innocens. If pain is complained of as occurring only during exertion, if it is related to exertion and never arises at rest or at night, it may be taken that the patient is not suffering from angina innocens but from angina of effort. The syncopal type of angina innocens may suggest an epileptic attack with a visceral aura. The onset, however, is less abrupt than that of epilepsy. Convulsions do not occur. There is no incontinence of urine. The course of the disease is unlike that of epilepsy, for there is no progressive increase in the severity of the symptoms. The patients generally show steady, if slow, improvement. It is difficult to understand how the pain of angina innocens is produced. There is quite obviously no coronary disease. The severe spasmodic type of attack may just possibly be associated with some temporary coronary spasm, but of this there is as yet no evidence. An overactive central nervous system, due to psychologic or endocrine factors, may be a contributing cause. A final factor, the mechanism of which still remains obscure, is the known association between chronic infection and "irritable heart."

Journal of Physiology, London

89: 113-238 (March 5) 1937

Effect of Alternating Currents on Cochlea. G. V. Gersuni and A. A. Volokhov.—p. 113.

Further Analysis of Action of Alternating Currents on Auditory Apparatus. A. A. Arapova, G. V. Gersuni and A. A. Volokhov.—p. 122.

Impedance Changes in Muscle During Contraction, and Their Possible Relation to Chemical Processes. M. Dubuisson.—p. 132.

*Effects on Human Electrocardiogram of Introduction of Calcium and Potassium into Blood. I. Harris and D. A. Levin.—p. 153.

Effects of Respiration on Circulation Through Liver, as Studied by Means of X-Ray Cinematography. K. J. Franklin and R. Janker.—p. 160.

Action of Eserine and Related Compounds and of Acetylcholine on Central Nervous System. A. Schweitzer and S. Wright.—p. 165.

Influence of Temperature on Isolated Kidney, of Dog. R. G. Bickford and F. R. Winton.—p. 198.

Action Potentials of Normal Mammalian Muscle: Effects of Acetylcholine and Eserine. G. L. Brown.—p. 220.

Effects on Electrocardiogram of Calcium and Potassium Introduced into Blood.—Harris and Levin have attempted to ascertain the effects produced on the human electrocardiogram by alterations in the concentration of the bases normally present in the blood. The method employed consists in administering intravenously various bases to individuals and taking electrocardiograms and blood samples before and after such administration. Various calcium preparations were used for intravenous injections. The quantities of calcium in the blood serum were determined by the technic described by Clark and Collip in 1925. Intravenous injections of various quantities of a 5 per cent solution of potassium chloride were used in all the experiments. The quantities of potassium in the blood serum were determined by the method of Kramer and Tisdall. The authors did not succeed in raising to any pronounced extent the serum sodium by injection of sodium chloride. A rise in blood magnesium of from 2.8 to 5.2 mg. per hundred cubic centimeters did not affect the electrocardiogram in any particular way. When calcium or potassium salts are introduced into the blood stream of human subjects, the heart rate is definitely reduced, and this reduction may persist for a considerable time. No definite correlation could be found between the magnitude of the changes in the electrocardiogram and the concentration of calcium or potassium in the blood serum.

Lancet, London

1: 793-850 (April 3) 1937

Cancer Tests and Treatments. P. N. Panton.—p. 793.

Studies in Serum Treatment of Lobar Pneumonia. G. J. Langley, W. Mackay and L. Stent.—p. 795.

*Ancylostoma Anemia. M. M. Fikri and P. Ghalioungui.—p. 800.

Labor Complicated by Thrombosis of Mesentery: Resection of Ten Feet of Small Bowel—Patient Alive and in Good Health Twenty-Four Years Later. G. G. Turner.—p. 802.

Clinical Diagnosis of Polyarteritis Nodosa: Report of Four Recent Cases. A. W. D. Leishman.—p. 803.

Cystic Degeneration of Chorionic Villi in the Sixth Decade. C. Hollósi.—p. 808.

Repeated Perforation of Peptic Ulcer with Subsequent Treatment. A. C. Lysaght and W. B. Williams.—p. 809.

Ancylostoma Anemia.—Fikri and Ghalioungui investigated the dextrose tolerance of eighteen cases of pure ancylostoma infestation. In twelve there was some abnormality in the extent of the hyperglycemic response, its duration or its fall. In nine of these, two or more defects were associated. The blood sugar curves after intravenous injection of dextrose were determined in eight cases. They were normal and did not correspond to the respective oral responses. Interference with absorption caused in some way by the presence of the ancylostoma worms and by their bites in the duodenum is presented as a possible explanation.

Quart. Bull., Health Org., League of Nations, Geneva

5: 747-1126 (Dec.) 1936

Public Health and Social Problems in the United States of America. Report by the Participants on Study-Tour Arranged by the Health Organisation of the League of Nations and the United States Public Health Service.—p. 747.

Health Indexes: Study of Objective Indexes of Health in Relation to Environment and Sanitation. K. Stouman and I. S. Falk.—p. 901.

Cooperation, in Health Matters, Between the National Government of the Republic of China and the League of Nations. A. Stampar and His Missions to China.—p. 1082.

Bul. et Mém. de la Soc. Méd. des Hôpitaux de Paris

53: 478-516 (April 26) 1937. Partial Index

Gross Vesicular Emphysema of Lungs Simulating Congenital Pulmonary Cysts. M. Brulé, P. Hillemand, J. Delarue and R. Gaube.—p. 478.
Pulmonary Air Cysts: Statigraphic or Tomographic Technic; Three Cases. F. Meersseman, P. Buffé, P. Durand and L. Gallouin.—p. 487.
Suppurated Air Cysts. J. Cathala and Brincourt.—p. 490.
Pulmonary Cysts and Bronchiectasis. J. Comby.—p. 492.
Air Cysts in Early Infancy. L. Ribadeau-Dumas.—p. 495.
Multiple Subpleural Air Cysts Following Obstruction of Air Passages in Child, Aged 7 Years, with Hereditary Syphilis. E. Apert.—p. 499.
*Pulmonary Cysts in Adults and Their Meaning. P. Ameuille and C. Rendu.—p. 500.

Pulmonary Cysts in Adults.—Ameuille and Rendu believe that air cysts of the lungs may be congenital as well as acquired. Many infants with congenital cysts die young. In those who survive, the cyst becomes larger with increasing age. This is the reason why pediatricians see mostly congenital cysts and internists treating aged persons say that cysts of adults are acquired. There are naturally also differences in structure distinguishing them from normal air cavities or from hydatid or dermoid cysts. Difficulties in diagnosis arise when air cysts are the seat of inflammatory processes. Roentgenologic examinations cannot differentiate between ordinary cavities and cysts, even with the use of opaque substances, which do not always penetrate through the bronchi. Some authors have even mistaken cysts for a pneumothorax, and Vallebona had little success with his "statigraphic" roentgenograms. Air cysts are not seen in middle aged persons. Unilocular cysts are of mediocre size, but all around them there may be found large emphysematous vesicles which become smaller as their distance from the central cyst increases. To give them a valid interpretation, it is necessary to know to which vascular system of the lungs they belong and what relation they have with other lesions.

Presse Médicale, Paris

45: 625-640 (April 24) 1937

*Splenectomy in Chauffard-Still's Syndrome. M. Loeper, A. Lemaire and J. Patel.—p. 625.
Ulcer of Posterior Aspect of Stomach and Its Roentgenologic Diagnosis. R. Ledoux-Lebard and J. Garcia-Calderon.—p. 628.
Roentgenologic Examination of Lungs in Prone Posture. R. Benda, H. Mollard and C. Debray.—p. 631.
Clinical Manifestations and Roentgenologic Signs of Lumbo-Aortic Adenopathies in Cancer of Genital Glands. R. Leibovici and J. Hepp.—p. 635.

Splenectomy in Chauffard-Still's Syndrome.—Loeper and his associates describe a case of polyarthritis with enlarged spleen and lymph nodes and increased temperature, which in the beginning was temporarily relieved by salicylates. The recurrence resisted all medication, and splenectomy was decided on. After a transfusion of 300 cc., a curvilinear incision was made on the left side of the abdomen just above the umbilicus. The spleen was found to be firm and adherent. The splenic vessels were ligated close to the hilus at the edge of the pancreas, and a few isolated vessels were attended to. Then the spleen was taken out and the gastrosplenic omentum sutured. Microscopic examination showed that the sinuses of the spleen were devoid of cellular elements in the midst of a hyperplastic reticulum. Their endothelial lining had proliferated, showing numerous karyokineses; some foci of degeneration seemed to be due to hyaline transformation of vessels. The postoperative improvement of the patient was rapidly progressive, functional impairments disappeared and the joints became freer in their movements. Five weeks after the operation there was a sudden onset of bilateral bronchopneumonia, from which the patient died. This splenectomy for Chauffard's polyarthritis is, according to the authors, the third of its kind mentioned in the literature. Both preceding cases were rewarded with permanently favorable results.

Giornale di Clinica Medica, Parma

18: 243-326 (April 10) 1937

Renal Insufficiency in Course of Amyloidosis of Kidney: Cases. B. Davolio-Marani.—p. 243.
*Fragility of Capillaries in Pulmonary Tuberculosis: Modifications by Action of Vitamin C. G. Borsalino.—p. 273.

Fragility of Capillaries in Pulmonary Tuberculosis.—Borsalino made determinations of the resistance of the capillaries in 140 patients suffering from pulmonary tuberculosis, with and without hemoptysis. The determinations were made before and after administration of an intravenous injection of 100 mg. of cevitamic acid. Patients with grave hemoptysis as well as those suffering from intestinal complications or a cachectic condition were excluded. The resistance of the capillaries is almost normal in patients who do not have a tendency to suffer from hemoptysis. In hemoptoic patients it is low. In both instances the resistance of the capillaries increases immediately after administration of cevitamic acid. The increase progresses for the first twelve hours after the injection. Then it diminishes slowly, and about twenty-four hours after the injection it is the same as it was before. Cevitamic acid also proved to have a favorable symptomatic action by which the general condition and appetite of patients improved and the fever and quantity of sputum were favorably modified. The anatomic condition of the lungs, however, remained unchanged. In cases of actual hemoptysis the latter stopped but frequently reappeared when the cevitamic acid treatment was discontinued.

Archivios de Pediatría del Uruguay, Montevideo

8: 137-208 (March) 1937. Partial Index

*Ether Enemas in Whooping Cough. N. Leone Bloise and E. Alvariza Perez.—p. 137.
Infantile Thyroid Pathology in Uruguay. M. A. Jaureguy.—p. 147.
Abdominal Lymphogranulomatosis in Child: Case. E. G. Caselli.—p. 158.
Baryta Enema in Acute Intussusception in Infants. A. Rodriguez Castro, J. Vizziano Pizzi and J. A. Soto.—p. 170.
Twisted Ectopic Testicle in Infant: Case. J. Vizziano Pizzi.—p. 179.

Ether Enemas in Whooping Cough.—The treatment advised by Leone Bloise and Alvariza Perez consists in daily enemas of a solution prepared according to the following formula: 20 cc. of a 10 per cent solution of camphor in ether, 30 Gm. of eucalyptol and 100 cc. of a 4 per cent solution of aromatized oil in liquid petrolatum. The enema is given through a No. 14 or 16 Nelaton catheter introduced 15 cm. into the rectum. The dose for each enema is 5 cc. for infants, 10 cc. for children from 2 to 8 years of age and 15 cc. for older children. The treatment consists of eight enemas (one a day) and in grave cases, fifteen. The authors conclude that the ether enemas favorably modify the evolution of whooping cough and prevent the development of complications, especially of the respiratory tract. The number of attacks and duration of the disease are greatly diminished. The technic for administration of the enemas is easy and they may be given at home by the mother. Infants and children have complete tolerance to the treatment, which can be given with specific vaccines (freshly prepared) or with antispasmodic drugs, such as belladonna, for instance. Satisfactory results from the treatment were attained by the authors in 80 per cent of the cases in a group of eighty children who received the treatment.

Arch. Urug. de Med., Cir. y Especialid., Montevideo

10: 273-404 (March) 1937. Partial Index

*Symptomatic Improvement of Emphysema from Pneumoperitoneum. R.-A. Piaggio-Blanco, R.-O. Piaggio-Blanco and R.-A. Caimi.—p. 273.
Thyroid-Hypophysial Syndrome: Case. J.-M. Cerviño, J.-C. Barsantini and A. Bertolini.—p. 284.
Enteritis with Salmonellas in Infants: Cases. J. Lorenzo and Deal.—p. 295.
Vicarious Hormone Therapy in Sterility of Ovariopathic Origin: Case. A. Stábile.—p. 321.
Volvulus of Stomach: Cases. C. Nario and J.-P. Otero.—p. 341.

Symptomatic Improvement of Emphysema from Pneumoperitoneum.—Piaggio-Blanco and his collaborators advise performing pneumoperitoneum, with repeated administration of large amounts of oxygen (2 liters at a time), in the treatment of grave emphysema associated with chronic bronchitis and asthmatic crises. After the treatment dyspnea diminishes, expectoration is more easy than before, the vital capacity increases and the patient can rest in the dorsal decubitus and feels greatly relieved. The improvement caused by the treatment is due to the elevation of the diaphragm with consequent restoration of its functions and regulation of the intra-abdominal pressure. During emphysema the equilibrium of intrapleural and intra-abdominal pressures is disturbed. The latter is negative. Pneumoperitoneum controls the disequilibrium and brings intra-abdominal pressure from negative to positive. Two cases are reported.

Deutsche Zeitschrift für Nervenheilkunde, Berlin

143: 113-216 (April 1) 1937. Partial Index

*Question of Specificity of Serologic Tests for Tuberculosis. H. Gerhartz.—p. 113.
Question of Tuberculous Etiology of Multiple Sclerosis. H. Ahringsmann.—p. 133.
Changes in Spinal Cord in Cases of Polyneuritis. F. Accornero.—p. 137.
*Aspects of Pseudobulbar Paralysis (Striopontine Form) in Younger Persons. L. Bini.—p. 158.
Meningoradiculoneuritis (Guillain-Barré) and Meningomyelo-Encephalitis Considered as Diseases in Which Pathologic Agent Has Primary Point of Attack in Meningeal Space. A. Biemond.—p. 172.
Neuropsychiatric Aspects of Cranial Hyperostoses. I. Somogyi and R. Bak.—p. 199.

Specificity of Serologic Tests for Tuberculosis.—Gerhartz demonstrates that the complement fixation reactions, which employ specific antigens obtained either from the pathogenic organism or from the tuberculous tissue, have proved specific in the animal experiment as well as in the clinical application. In the presence of tuberculosis, they are as a rule positive. If they are positive in the absence of tuberculosis, other organs may be tuberculous. They demonstrate biologic tuberculous activity, which is not necessarily identical with clinical activity. In case of negativity, the tuberculous tests should be repeated and, since different tests do not always produce identical results, several should be made on the same patient. Analysis of the cases in which positive tuberculous complement fixation reactions were obtained revealed that the reactions are positive not only in pulmonary and extrapulmonary tuberculosis but also in a number of other disorders, such as iritis, ulcer of the cornea, nonsyphilitic keratitis, hemorrhage and turbidity of the vitreous humor, retinal hemorrhage, neuritis of the optic nerve, Ménière's disease, angiospastic processes, lupus, polyserositis, multiple sclerosis and amyotrophic lateral sclerosis. The author says that it is not justified to designate a positive reaction as nonspecific merely because no typical tuberculous tissue changes can be found, for there are factors which suggest that these disorders might be of a tuberculous nature. He reaches the conclusion that the serologic tests for tuberculosis are a valuable aid in the differential diagnosis of tuberculosis and in the detection of hidden tuberculosis. However, for the estimation of the activity of the tuberculous process or for the prognosis, they are of slight value.

Aspects of Pseudobulbar Paralysis in Younger Persons.—Bini points out that the literature reports cases in which foci in the basal ganglions caused pseudobulbar paralytic manifestations. After citing some of these, he shows that most of these cases have in common a lesion on the external surface of the putamen, which partly involves the external capsule and the claustrum. The nucleus caudatus is less often involved. Occasionally the process spreads to the thalamus and in rare cases also to the internal capsule. However, the characteristic aspects of these cases are the foci on the external surface of the putamen. These foci may produce the symptoms of pseudobulbar paralysis, even if the process on the putamen does not involve the capsule, the thalamus or the nucleus caudatus. It is also noteworthy that rigidity predominates in these cases and that they are related to the arteriosclerotic muscular rigidity described by Förster. In the majority of cases, including those observed by the author, there exist severe degrees of calcification of the vessels so that the trophic factor plays a part in the genesis of the symptoms. A second group of cases of pseudobulbar paralysis concerns pontile foci and they are usually of an arteriosclerotic nature. The author says that among the most interesting cases of pseudobulbar paralysis are those in which the basal ganglions or only the corpus striatum are involved. It has been suggested by some that in these cases it is not so much paralysis as dystonia and Parkinson-like symptoms which predominate. To such cases, however, the term pseudobulbar paralysis could not properly be applied. Nevertheless, the older as well as the more recent literature reports cases in which the paralytic symptoms predominate over the striopallidal symptoms. Thus the question arises whether the striatum, in addition to its action on the tonus, may not also influence the motility. The author gives his attention to this question on the basis of two case reports concerning men aged 45 and 44 respectively. In the discussion of these cases he points out that there is no reason to assume that the striatum in addition to a tonic has also a motor function, for in the majority of cases of pseudobulbar paralysis in which the striatum showed a lesion other parts of the brain were also involved, such as the pons in one of his cases. The pontile involvement seems to indicate that in such cases the striatum exerts only a modifying, not a determining, influence.

Folia Haematologica, Leipzig

57: 1-160 (No. 1). 1937. Partial Index

Qualitative Behavior of Blood Platelets in Pernicious Anemia. J. Arneth.—p. 1.
*Significance of Salivary Glands for Pathogenesis of Pernicious Anemia. T. Tempka.—p. 30.
Changes in Blood Picture in Acute Glomerular Nephritides. E. Filo.—p. 39.
Interpretation of Nature of Hodgkin's Disease: E. M. Medlar, J. H. Hornbaker and W. H. Ordway.—p. 52.
Hypophysis and Hematopoiesis. O. O. Meyer, Gertrude E. Stewart, Ethel W. Thewlis and H. P. Rusch.—p. 99.
*Polycythemia Vera Ending in Agranulocytosis and Thrombarteritis Pulmonalis. H. Schnetz.—p. 110.

Salivary Glands and Pernicious Anemia.—Because perhaps other portions of the digestive tract, besides the stomach and the intestine, might play a part in the pathogenesis of pernicious anemia, Tempka gave his attention to the salivary glands. He describes his observations on a patient with pernicious anemia, in whom he resorted to the oral administration of saliva from normal persons. Over a period of seventy days, 20.33 liters of saliva was administered. A tabular report indicates the gradual improvement of the blood status and of the weight under the influence of the administration of saliva and also the renewed impairment of the blood status when administration of the saliva was interrupted for a while. The typical reticulocytic crisis developed on the sixth day of the treatment with saliva; that is, at about the same time it occurs in hepatogastrotherapy. The time of appearance of the reticulocytic crisis and several other factors indicate that the improvement which took place during the administration of saliva was not a spontaneous remission. In summarizing his observations the author says that the oral administration of normal saliva effects remission in a typical case of pernicious anemia. He cites several questions concerning the saliva therapy which require further investigation.

Polycythemia Vera Ending in Agranulocytosis.—Schnetz describes his observations on the involvement of the white blood picture in polycythemia. One case, which is described in detail, reveals (1) the typical symptoms of a polycythemia vera that could be traced back for five years and (2) the clinical aspects and the course of an acute (aleukemic) myelosis or agranulocytosis, respectively. As regards the symptom of polycythemia, which becomes manifest in a predisposition to thrombosis, this case is of interest because of a new localization. A thrombarteritis pulmonalis was observed which, if watched for, might be found to occur with considerable frequency in such cases, the more so since some of the symptoms of polycythemia (attacks of cyanosis, dyspnea and so on) are identical with those of sclerosis of the pulmonary arteries (A. Posselt). In the literature to which they had access, the authors found no other case of polycythemia vera with such a severe leukopenic, agranulocytic reaction as in the first case described in this report. In a second case with typical symptoms of polycythemia there developed a phlegmon of the hand and a mild agranulocytic reaction. The latter subsided again, together with the phlegmonous process, apparently in response to the administration of vitamins C and A.

Klinische Wochenschrift, Berlin

16: 553-584 (April 17) 1937. Partial Index

Problem of Gaucher's Disease. M. Zehnder.—p. 553.
Quantitative Determination of Cevitamic Acid in Blood Serum. H. Lund and H. Lieck.—p. 555.
*Mistakes in Evaluation of Sternal Puncture. A. von Domarus.—p. 557.
*Criticism of Sternal Puncture. K. Helpap.—p. 558.
Clinical Aspects of Hepatopathias During Childhood. S. Wolff.—p. 560.
Fluorine in Treatment of Hyperthyroidism Inclusive of Exophthalmic Goiter. W. May.—p. 562.
*Effect of Autohemotherapy on Agranulocytosis and Its Mode of Action. T. Sakurai.—p. 564.

Mistakes in Evaluation of Sternal Puncture.—Von Domarus emphasizes the necessity of recognizing the limits of the diagnostic use of the sternal puncture. He describes two cases which demonstrate that the result of the sternal puncture

may be misleading. In the first case the sternal puncture erroneously indicated a good regenerative capacity of the bone marrow, when the patient had an aplastic anemia or a myelophthisis, which terminated in death. The second case took a favorable course, although the two sternal punctures indicated a defective regeneration capacity of the bone marrow. On the basis of these cases, the author warns against an overestimation of the diagnostic value of sternal puncture.

Criticism of Sternal Puncture.—Helpap points out that the diagnostic use of the sternal puncture presupposes two factors: (1) that the sternal marrow is homogeneous in its cellular structure and (2) that there is a parallelism between the condition of the sternal marrow and the marrow of the other bones. After reviewing the scant literature about these two questions, the author reports his own studies on the sternal marrow of thirty-two cadavers, in none of which had there been a disease of the blood. Only twenty-two of the examined sternums had a homogeneous red marrow. In eight cases the sternal marrow was nonhomogeneous in that the cells from three distinct sites of puncture were different. In order to obtain information about larger portions of the bone marrow, the marrow of both femurs was examined in twenty-four of the cases. These observations prove that in one and the same patient the marrow in the long bones and in the sternum is not necessarily of a uniform character. The bone marrow apparently is not a homogeneous organ like the blood, and the diagnostic value of a sample of marrow taken at random should not be overestimated.

Autohemotherapy in Agranulocytosis.—In citing several case histories, Sakurai demonstrates that the severe as well as the mild forms of agranulocytosis, which occasionally develop after treatment with arsphenamine, can be counteracted by the injection of the patient's own blood. The author withdraws from 10 to 20 cc. of blood from the vein of the patient's arm and injects it immediately into the gluteal muscle. To avoid coagulation of the blood, the syringe is first moistened with citrate solution. The site of injection is massaged. The blood is injected every day or every second day until four or five injections in all have been given. The case histories indicate that the first injection effects a reduction in fever. The author suggests that the agranulocytosis after treatment with arsphenamine is a drug anaphylaxis. He also discusses the mode of action of autohemotherapy.

Medizinische Klinik, Berlin

33: 593-624 (April 30) 1937. Partial Index

Eye Injuries Caused by Foreign Bodies. W. Stock.—p. 593.
*Prontosil in Brucella Abortus Infection. W. Berger and H. Schnetz.—p. 594.
Romberg's Phenomena in Blind Persons. H. Urban.—p. 595.
*Nystagmus in Tumors of Thoracic Portion of Spinal Medulla. H. Hoff and O. Pötzl.—p. 598.
Congenital and Acquired Conditions of Feeblemindedness. H. Stefan.—p. 602.
Cardiac Neurosis. G. Tidow.—p. 605.

Chemotherapy in Brucella Abortus Infection.—In view of the favorable effects that had been obtained with prontosil in various infections, Berger and Schnetz decided to try this form of chemotherapy also in Brucella abortus infection. They report the clinical history of a man, aged 35, in whom the Brucella abortus infection did not respond satisfactorily to treatment with neoarsphenamine. After the neoarsphenamine treatment was discontinued, the patient was given daily three tablets of prontosil and three times each week an intramuscular injection of an ampule of prontosil. The response to this treatment was so favorable that the authors felt justified in reporting this case, realizing of course that a single case does not permit generalizing conclusions about the value of a treatment. They think that the prontosil should be tried in other cases of Brucella abortus infection.

Nystagmus in Tumors of Thoracic Portion of Spinal Medulla.—Hoff and Pötzl observed spontaneous nystagmus in three out of six patients with tumors in the thoracic region of the spinal medulla. They admit that because of the small number of cases the figures are of no significance, but they think that the characteristics of the nystagmus which appears in these cases deserve attention. They observed that it has a slow and a rapid component. The rapid component is in the direction of the visual movements; it is entirely horizontal and appears especially when the patient is standing, sitting or in the abdominal or dorsal positions. Turning the pelvis or rotating the legs arrests the nystagmus. These seem to be the only movements that cause cessation of the nystagmus. To be sure, in one case the completion of the lateral position was necessary to arrest it. After the surgical removal of the tumor from the thoracic portion of the spinal medulla, the nystagmus disappeared completely or only slight traces of it remained. As long as the nystagmus was at the peak of its development, pelvic movements toward either side and both lateral positions had the same effect, in spite of the fact that in the first two cases the spastic and paretic conditions were not equally severe on the two sides. In evaluating the significance of the described observations, the authors point out that they indicate the need of a careful examination of the nystagmus that develops in case of spinal tumor. Even if a spontaneous nystagmus is absent, it is advisable to subject these patients to the same examinations in order to determine whether some change in the position might not perhaps elicit a latent nystagmus. The differential diagnostic significance of this type of nystagmus is slight, because it occurs also in rare cases of multiple sclerosis; but it should be impressed on the nonspecialist in this field that the existence of a nystagmus does not necessarily speak either against a tumor of the thoracic spinal cord or for a multiple sclerosis.

Strahlentherapie, Berlin

58: 373-494 (March 20) 1937. Partial Index

Fractional and Protracted-Fractional Irradiation. H. R. Schinz.—p. 373.
Ray Treatment and Sensitivity to Rays of Tumors and Tumor-like Hyperplasias of Reticulo-Endothelial System. F. Windholz.—p. 406.
Artificial Pneumonia and Its Irradiation: Experimental Contribution to Action of Roentgen Rays on Inflamed Tissue. C. Fried.—p. 430.
*Changes in Pancreas Following Roentgen Irradiation. J. Seino.—p. 449.
Cell Permeability and Action of Rays. F. Ellinger.—p. 464.
Can Radium and Roentgen Rays Cause Impairment of Generative Function of Women? C. Weysser.—p. 470.

Changes in Pancreas Following Roentgen Irradiation.—Seino made experimental studies on the hypertrophy of the islands of Langerhans and its relationship to the assimilation of sugar. He produced hypertrophy of the islands in rabbits by partial extirpation of the pancreas, by ligation of a part of the organ, by chronic starvation, by roentgen irradiation or by the combination of the two latter methods. Later the animals were subjected to oral and intravenous sugar tolerance tests. In the rabbits that had been subjected to partial extirpation or ligation of the pancreas, the assimilation of sugar proved to be greatly impaired; but in those in which the pancreas had been subjected to roentgen irradiation there was no noticeable deviation in the assimilation of sugar, in spite of the fact that the irradiation with the large dose of roentgen rays had produced atrophy or complete destruction of the pancreatic parenchyma. The islands of Langerhans showed no hypertrophy following roentgen irradiation, but there was a compensatory new formation of islands. A rabbit that had been subjected to chronic starvation showed hypertrophy of the islands of Langerhans but no hypoglycemia. He never observed hypoglycemia in connection with hypertrophy of the islands. Roentgen irradiation severely impaired the rabbit pancreas, but the effect of this impairment on the assimilation of sugar is less severe than in case of extirpation or ligation of a part of the pancreas. The irradiation was followed by hypoglycemia, but this had no connection with the condition of the islands of Langerhans.

Zeitschrift f. d. ges. experimentelle Medizin, Berlin

100: 417-546 (April 14) 1937. Partial Index

*Do Cutaneous Temperatures Differ in Men and Women and Is There a Difference Between Day and Night Temperature? O. Scheurer and H. Zimmermann.—p. 417.
Mode of Action of Prontosil. W. Hoffmann.—p. 427.
Central Action of Ephedrine and Ephetonine. H. Killian and K. Kuhlmann.—p. 432.
Phosphatase in Blood Plasma in Persons with Malignant Tumor. H. Lubenstein.—p. 456.
Physiology of Basal Ganglions. A. Leimdörfer.—p. 447.
*Inhibition and Activation of Serum Phosphatase in Carcinoma. H. Baumert.—p. 468.

Cutaneous Temperatures During Day and Night.—Scheurer and Zimmermann report their observations on fifty-eight men and women who were free from fever. Over 10,000

temperature measurements were made in all. Whereas the rectal temperature remained practically constant, the graph recordings of the cutaneous temperatures revealed small and large indentations. The fluctuations in the cutaneous temperatures are not dependent on the changes in pulse frequency. Moreover, the cutaneous temperature takes its course independent of the body temperature; it is always lower than the body temperature. Persons, whose cutaneous temperature was measured on the same day in the same room, with few exceptions gave identical curves of the cutaneous temperature. The same persons tested on different days showed a different course of the curves. A comparison of the cutaneous temperatures of men and women showed that during the day the cutaneous temperature of men is approximately 0.8 degree C. (1.4 degree F.) higher than that of women. During the night the cutaneous temperature of men decreases, whereas it seems to remain constant or increase slightly in women.

Serum Phosphatase in Carcinoma.—Baumert studied the modification of the serum phosphatase by activating and inhibiting substances in noncancerous and in cancerous patients. He describes activation experiments with magnesium chloride and inhibition experiments with calcium ions, sodium fluoride and so on. He thinks that, although the demonstrated activation and inhibition of the phosphatase of the carcinoma serum seems to indicate that this is characteristic for carcinoma serums, the behavior of the carcinoma serum in other respects does not support the unequivocal or diagnostic estimation of these aspects. An increase in the phosphatase values develops not only in carcinoma but also in obstructive jaundice, uremia with secondary contracted kidney and septic conditions. Moreover, other authors have observed it in degenerative bone disease and in tuberculosis. On the other hand, there were relatively low values in carcinoma of the upper respiratory and digestive tracts. Since in most cases the phosphatase values increase together with the progressive metastasization, it may be assumed that the high phosphatase values are the manifestation of a cytolytic process. In this connection the author calls attention to a parallelism between the phosphatase values and the cholesterol content in the serum. An increase in the cholesterol content is observed in obstetric jaundice, uremia, severe diabetes and carcinoma, and it is considered the result of cell impairing processes, in that the cholesterol which is liberated in cell disintegration enters the blood. A similar cause may be assumed also for the increase in phosphatase, particularly since phosphatase concerns chiefly the anaerobic metabolism, which is characteristic for carcinoma with its inadequate oxygen supply.

Zeitschrift für klinische Medizin, Berlin

132: 1-152 (April 7) 1937. Partial Index

*Clinical Significance of Prolonged QT Interval (Duration of Systole) in Electrocardiogram. R. Hegglin and M. Holzmann.—p. 1.
*Behavior of Respiratory Quotient in Hyperfunction of Thyroid. H. W. Bansi and A. Wolter.—p. 33.
*Histidine Treatment of Hemophilia. H. Kohl.—p. 40.
Mineral and Biliary Constituents of Duodenal Juice in Hepatic and Other Disorders. H. Minibeck.—p. 55.
Dysostosis Cleidocranialis: Three Cases. W. Pilgerstorfer.—p. 108.
Late Gangrene After Electrical Injuries. H. Schnetz.—p. 120.

Prolonged QT Interval in Electrocardiogram.—Hegglin and Holzmann describe their investigations of 700 normal electrocardiograms. They observed a lengthening of the systole regularly in case of hypocalcemic conditions such as tetany, hepatic coma and uremia, but as the calcium content of the serum increases again it is reversible. Under toxic influences and metabolic and endocrine disturbances, the lengthening of the QT interval signifies a grave condition but the prognosis is not entirely unfavorable. In case of hypertrophic hearts in patients with hypertension and in the early and late stages of cardiac infarct, a slight prolongation of the QT interval is relatively frequent as the manifestation of a longer lasting stimulation in the pathologically changed portion of the heart. The lengthening of the QT interval, which occurs in pulmonary embolism and in collapse-like and comatose conditions, remains unexplained as regards its mechanism and significance. As can be seen from the ST-T portion of the electrocardiogram, in hypocalcemia the total process of excitation is abnormally prolonged, whereas in the other groups with QT lengthening it is chiefly the retrogressive phase that is abnormally long. The authors conclude that the lengthening of the systole in the electrocardiogram occurs in various disorders. It may be a harmless accompanying symptom for instance of hypocalcemia, but also the manifestation of a severe impairment of the myocardial function.

Respiratory Quotient in Hyperfunction of Thyroid.—Bansi and Wolter say that the relation of carbon dioxide elimination to the intake of oxygen is dependent chiefly on the coordination of the combustion processes in the organism. After citing the respiratory quotient of the different basic foodstuffs (carbohydrates, fats, proteins) they state that in normal persons who take a mixed diet the respiratory quotient is usually around 0.85. An abnormal height of the respiratory quotient, that is, an increase to over 1, is observed in case of forced feeding with carbohydrates, when as the result of the transformation of carbohydrates into fats an excess of carbon dioxide is eliminated by the expiration. During starvation, on the other hand, the respiratory quotient often decreases to less than 0.7. However, the respiratory quotient is influenced not only by the food intake but also by other factors, such as the voluntary increase in the ventilation, observable during metabolic tests on frightened persons. In taking up the question of the respiratory quotient in patients with exophthalmic goiter, the authors point out that the scanty literature on this problem indicates that surprisingly often it is low. They decided to determine the respiratory quotient of patients with exophthalmic goiter and with other hyperthyroid conditions in their large material (225 cases). They observed a noticeable dependence of the respiratory quotient on the increased basal metabolic rate. The fact that with the increasing severity of the case the respiratory quotient is reduced almost to the level of the pure fat combustion indicates that the thyrotoxicosis severely taxes the carbohydrate metabolism and the carbohydrate stores of the organism. If, as the result of treatment of the hyperthyroidism, the basal metabolic rate decreases, there is nearly always a corresponding increase in the respiratory quotient up to normal values.

Histidine Treatment of Hemophilia.—Kohl observed that the enteral and parenteral administration of histidine considerably shortens coagulation (reaction time). This reduction was most noticeable in the sphere of the capillaries. Histidine also effected a noticeable reduction in the reaction time of the hemolyzed venous blood. It was possible to produce a greater and more lasting reduction of the reaction time by a combination of histidine with calcium and vitamin C. In three cases of true hemophilia, the reaction time of the capillary blood could be reduced or normalized by means of the oral administration of histidine, at least for the duration of the treatment, which may be carried out at intervals of from one to two days. The course of hemophilia is most favorably influenced by combining the permanent histidine treatment with the administration of calcium and vitamin C. One hemophilic patient, who was treated with histidine for a whole year, showed a considerable lessening in the hemorrhagic tendency. This hemophilic patient, who in the years from 1929 to 1935 had been confined to bed on account of articular hemorrhages for an average of 121 days annually, during 1936 when he received histidine treatment required only ten days of rest in bed on account of articular hemorrhages, which occurred during the intervals between the treatments. The two other hemophilic patients up to the time of this report had received a combination treatment with histidine, calcium and vitamin C for periods of six and eight weeks, respectively; during this time they had no serious hemorrhages.

Wiener klinische Wochenschrift, Vienna

50: 427-458 (April 2) 1937. Partial Index

Surgery of Diseases of Peripheral Vessels. W. Denk.—p. 427.
Ecbolics and Their Modern Application. T. Antoine.—p. 431.
Contribution to Pathogenesis of Hereditary Syphilis. G. Engerth and C. Palisa.—p. 436.
*Biologic Action of Androgen Intensified by Estrogen. H. Kun and O. Peczenik.—p. 439.
Newer Results in Sphere of Vaccination and Preparation of Vaccine. M. Kaiser.—p. 441.
*Truly Allergic Articular Diseases. E. Maliwa.—p. 443.

Male Sex Hormone and Estrogenic Hormone.—Kun and Peczenik developed a modification of the so-called electrical ejaculation test, which enabled them to determine the

potency of androgens. They first determine the sexual potency of the animals by means of electrical stimulation, which elicits ejaculation in all normally developed male animals. Following castration, however, the electrical stimulation has this effect only after the animal has been treated with androgen. By means of this test the authors determined the marginal doses of various androgens and compared them with the doses that are required if they are given in combination with a constant quantity of estrogen (600 international benzoate units). They found that the addition of estrogen definitely reinforces the effect of androgen.

True Allergic Joint Diseases.—Aside from the allergic-hyperergic mechanism, which is assumed to play a part in the pathogenesis of chronic infectious arthritis, Maliwa directs attention to a small group of chronic articular changes for which a special pathogenesis must be assumed. He reports the clinical histories of two cases which represent two types of this special form of articular changes. In summarizing the characteristics of these two types he says that following allergic cutaneous or intestinal disorders first fleeting and later permanent articular swellings develop. These swellings are usually extremely painful. Even after they have existed for several years, the roentgenogram reveals no bone change, with the exception of an occasional moderate decalcification. There is usually no fever even in times of sudden exacerbations of the articular disorder. The sedimentation speed of the blood is never accelerated and may even be slightly retarded. The author stresses the importance of the differentiation of this process from chronic infectious arthritis. Exacerbations occur in both forms, but in the allergic form they are extremely sudden and occur often over night and without fever. A dietetic indiscretion may have preceded. The absence of allergic cutaneous changes does not indicate the absence of an allergic cause, for allergy may become manifest in diverse forms. In discussing the pathogenesis of the allergic articular disorders, the author suggests that an insufficiency in the fermentative decomposition of foods may play a part. He found the administration of a substance that inhibits histamine formation of therapeutic value.

50: 459-490 (April 9) 1937. Partial Index

Occurrence of Tularemia in Austria (Epidemiology and Diagnosis). H. David.—p. 459.
Ophthalmologic Aspects of Tularemia. F. A. Hamburger.—p. 462.
Distribution of Poliomyelitis in Europe During Last Ten Years. J. Zappert.—p. 463.
Therapy of Disorders of Peripheral Vessels. K. Hitzenberger.—p. 465.
Question of Disturbance in Internal Gas Exchange. O. Klein.—p. 467.
*Agranulocytosis and Arsphenamine. H. Möschl.—p. 472.

Agranulocytosis and Arsphenamine.—Möschl points out that agranulocytosis has been observed repeatedly following antisyphilitic treatment with arsphenamine, but the combination with bismuth has often been regarded as the offensive factor in these cases. Cases in which arsphenamine exerted a therapeutic effect on an already existing agranulocytosis are relatively rare. Such a case is reported in this paper. Since a Plaut-Vincent angina seemed to be the cause of the agranulocytosis, it was decided to administer a dose of neoarsphenamine. Following this, the tonsillar membranes were cast off, the fever subsided and the blood picture improved. Since the sternal puncture revealed a normal bone marrow, it may be assumed that the excretion of the granulocytic elements from the bone marrow was blocked and not that the bone marrow had been impaired. The sternal puncture is an important diagnostic factor in such cases. In those that are similar to the reported one and whenever the sternal puncture reveals a well functioning bone marrow, a therapeutic attempt with arsphenamine seems advisable. In cases of impaired bone marrow the administration of arsphenamine does not seem desirable, although the question should be taken into consideration whether perhaps the arsphenamine would counteract the infectious process. The reported case is noteworthy also with regard to the relationship between aminopyrine and agranulocytosis. The patient had been given twice 0.3 Gm. of aminopyrine, but it is doubtful that such small doses would elicit agranulocytosis, especially since there were no signs of an allergy to aminopyrine.

Hospitalstidende, Copenhagen

80: 397-424 (April 13) 1937

*Occurrence of Myelocytes in Normal Human Thymus and Relation of This Observation to Theories of Genesis of Blood Cells. A. Bertelsen, —p. 397.
Bandaging in Fracture of Clavicle. E. Madsen.—p. 419.

Myelocytes in Normal Human Thymus.—Bertelsen states that promyelocytes, myelocytes and leukocytes were found in not inconsiderable quantities in the thymus in all cases examined, in fetuses in the last third of pregnancy, in the new-born, in children and in adults. The myelocytes divide and all stages up to leukocytes were seen. The number, the immature myelocyte forms and the preponderance of eosinophil types testify strongly against a vasogenic and for a local origin. In fetuses and children there were often in the interlobar septums large nongranulated mononuclear cells, from which many of the myelocytes established in this age group are assumed to develop. In adults this cell type was encountered only occasionally and in small numbers, but in the parenchyma large nongranulated cells were seen in direct relation to promyelocytes and myelocytes. The cells are believed to originate from the small lymphocytes and to be the most important mother cells for myelocytes. In spite of the frequent occurrence of "trachychromatic" myelocytes, direct granulation is not considered probable, since transition forms are lacking and since this myelocyte type occurs also in nonlymphatic tissue. Myelocyte formation from the thymus reticulum was not demonstrated.

Ugeskrift for Læger, Copenhagen

99: 383-404 (April 8) 1937

Diathermy Treatment of Lupus. H. Haxthausen.—p. 383.
*Investigations on Reliability of Friedman Test as a Test for Pregnancy. B. Heiberg.—p. 387.

Friedman Test for Pregnancy.—Through questionnaires addressed to attending physicians on the relation between the Friedman test and the clinical results with regard to pregnancy, Heiberg ascertained that there was complete agreement between the clinical diagnosis and the reaction in 98 per cent of 957 reactions, uncertain diagnosis in about 1 per cent and erroneous reaction in about 1 per cent. In the four erroneous positive reactions the differential diagnosis was between pregnancy and the climacterium; three of the five erroneous negative reactions were in women in the middle of pregnancy. The author says that in abortion and missed abortion the reaction may be negative or positive, depending on the functional ability of the retained chorion tissue. In no case in this material was the diagnosis of extra-uterine pregnancy maintained in the face of a negative Friedman reaction, but according to earlier statistics the reaction is often negative in extra-uterine pregnancy.

99: 427-452 (April 22) 1937

*Galactosemia and Galactosuria in Acute Hepatic Diseases. N. I. Nissen. —p. 427.
Hypercholesterolemia in Castrated Men. G. Teilum.—p. 437.
Is Solution of Posterior Pituitary Misused? S. Horneman.—p. 440.

Galactosemia and Galactosuria in Hepatic Diseases.—Nissen reports the course of galactose tolerance in twenty-three patients with acute diffuse parenchymatous hepatitis. He states that galactose can always be established in the blood, also in normal persons, even when galactose is not eliminated. The galactose elimination in the blood therefore has to exceed a certain threshold before sugar can be demonstrated in the urine by the usual reduction methods. The blood galactose curve in hepatitis increases mainly in height, not in length. Elimination can vary greatly in hepatitis with the same loading of the kidneys, and as a rule it reaches its height corresponding to the acme of the parenchymal disturbance, showing that, parallel with the hepatic disorder, changes occur in the mechanism of galactose elimination. This explains the earlier failure to establish an agreement between the blood sugar values and the elimination after administration of galactose in hepatitis, and also that measurement of the galactose elimination as by Bauer's test must be a more reliable measure of the liver function than determination of the concentration of the blood galactose.

JOURNALS ABSTRACTED IN THE CURRENT MEDICAL LITERATURE DEPARTMENT, JANUARY-JUNE, 1937

Abstracts of important articles in the following journals have been made in the Current Literature Department of THE JOURNAL during the past six months. Any of the journals, except those starred, will be lent by THE JOURNAL to subscribers in continental United States and Canada and to members of the American Medical Association for a period not exceeding three days. Two journals may be borrowed at a time. No journals are available prior to 1927. Requests for periodicals should be addressed to the Library of the American Medical Association and should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested). Thus most of these journals are accessible to the general practitioner.

Acta Chirurgica Scandinavica. Stockholm.
Acta Dermato-Venereologica. Stockholm.
Acta Medica Scandinavica. Stockholm.
Acta Obstetricia et Gynecologica Scandinavica. Stockholm.
Acta Tuberculosea Scandinavica. Copenhagen.
American Heart Journal. St. Louis.
American Journal of Anatomy. Philadelphia.
American Journal of Cancer. New York.
American Journal of Clinical Pathology. Baltimore.
American Journal of Digestive Diseases and Nutrition. Fort Wayne, Ind.
*American Journal of Diseases of Children. A. M. A., Chicago.
American Journal of Hygiene. Baltimore.
American Journal of the Medical Sciences. Philadelphia.
American Journal of Medical Technology. Detroit.
American Journal of Obstetrics and Gynecology. St. Louis.
American Journal of Ophthalmology. St. Louis.
American Journal of Orthopsychiatry. Menasha, Wis.
American Journal of Pathology. Boston.
American Journal of Physiology. Baltimore.
American Journal of Psychiatry. New York.
American Journal of Public Health. New York.
American Journal of Roentgenol. & Rad. Therapy. Springfield, Ill.
American Journal of Surgery. New York.
American Journal of Syphilis, Gonor. and Venereal Diseases. St. Louis.
American Journal of Tropical Medicine. Baltimore.
American Review of Tuberculosis. New York.
Anatomical Record. Philadelphia.
Annaes Brasileiros de Gynecologia. Rio de Janeiro.
Annales de Parasitologie. Paris.
Annali di Ostetricia e Ginecologia. Milan.
Annali di Radiologia e Fisica Medica. Bologna.
Annals of Internal Medicine. Lancaster, Pa.
Annals of Medical History. New York.
Annals of Otology, Rhinology and Laryngology. St. Louis.
Annals of Surgery. Philadelphia.
Archiv für Gynäkologie. Berlin.
Archiv für klinische Chirurgie. Berlin.
Archiv für Verdauungs-Krankheiten. Berlin.
*Archives of Dermatology and Syphilology. A. M. A., Chicago.
Archives of Disease in Childhood. London.
*Archives of Internal Medicine. A. M. A., Chicago.
Archives des Maladies de l'Appareil Digestif. Paris.
Archives des Maladies du Cœur. Paris.
Archives de Médecine des Enfants. Paris.
*Archives of Neurology and Psychiatry. A. M. A., Chicago.
*Archives of Ophthalmology. A. M. A., Chicago.
*Archives of Otolaryngology. A. M. A., Chicago.
*Archives of Pathology. A. M. A., Chicago.
Archives of Physical Therapy, X-Ray, Radium. Chicago.
*Archives of Surgery. A. M. A., Chicago.
Archivio Italiano di Chirurgia. Bologna.
Archivio Italiano delle Malattie dell'Apparato Digerente. Bologna.
Archivio per le Scienze Mediche. Turin.
Archivos de Pediatría del Uruguay, Montevideo.
Archivos Uruguayos de Medicina, Cirugia y Especialidades. Montevideo.
Beiträge zur klinischen Chirurgie. Berlin.
Beiträge zur Klinik der Tuberkulose. Berlin.
Bibliotek for Læger. Copenhagen.
Boletín de la Sociedad Cubana de Pediatría. Havana.
Bollettino dell'Istituto Sieroterapico Milanese. Milan.
Bollettino della Società Medico-Chirurgica. Pavia.
Brain. London.
Brasil-Medico. Rio de Janeiro.
Bristol Medico-Chirurgical Journal.
British Journal of Anæsthesia. Manchester.
British Journal of Children's Diseases. London.
British Journal of Dermatology and Syphilis. London.
British Journal of Experimental Pathology. London.
British Journal of Ophthalmology. London.
British Journal of Physical Medicine. London.
British Journal of Radiology. London.
British Journal of Surgery. Bristol.
British Journal of Tuberculosis. London.
British Journal of Urology. London.
British Medical Journal. London.
Bronchoscopie, Oesophagoscopie et Gastroscopie. Paris.
Bruxelles-Médical. Brussels.
Bulletin de l'Académie de Médecine. Paris.
Bulletin Général de Thérapeutique. Paris.
Bulletin of the Johns Hopkins Hospital. Baltimore.
Bulletin Médical. Paris.
Bulletins et Mémoires de la Société des Chirurgens. Paris.
Bulletins et Mémoires de la Société Médicale des Hôpitaux. Paris.
California and Western Medicine. San Francisco.
Canadian Medical Association Journal. Montreal.
Canadian Public Health Journal. Toronto.
Chinese Medical Journal. Peiping.
Chirurg. Berlin.
Clinica Chirurgica. Milan.
Clinica Medica Italiana. Milan.
Clinica Ostetrica. Rome.
Clinica Pediatrica. Modena.
Clinical Journal. London.
Clinical Science. London.
Clinique. Paris.
Colorado Medicine. Denver.
Cuore e Circolazione. Rome.
Delaware State Medical Journal. Wilmington.
Deutsches Archiv für klinische Medizin. Berlin.
Deutsche medizinische Wochenschrift. Leipzig.
Deutsche Zeitschrift für Chirurgie. Berlin.
Deutsche Zeitschrift für Nervenheilkunde. Berlin.
Diagnosi. Bologna.
East African Medical Journal. Nairobi.
Edinburgh Medical Journal.
Endocrinology. Los Angeles.
Finska Läkaresällskapets Handlingar. Helsingfors.
Folia Haematologica. Leipzig.
Folia Medica. Naples.
Fortschritte auf dem Gebiete der Röntgenstrahlen. Leipzig.
Gazzetta Internazionale di Medicina e Chirurgia. Naples.
Ginecologia. Turin.
Giornale di Batteriologia e Immunologia. Turin.
Giornale di Clinica Medica. Parma.
Giornale di Tisiologia. Naples.
Glasgow Medical Journal.
Guy's Hospital Reports. London.
Gynécologie et Obstétrique. Paris.
Hospitalstidende. Copenhagen.
Hygiea. Stockholm.
Illinois Medical Journal. Chicago.
Indian Journal of Medical Research. Calcutta.
Indian Medical Gazette. Calcutta.
International Journal of Psycho-Analysis. London.
Irish Journal of Medical Science. Dublin.
Jahrbuch für Kinderheilkunde. Berlin.
Japanese Journal of Experimental Medicine. Tokyo.
Japanese Journal of Gastroenterology. Kyoto.
Japanese Journal of Obstetrics and Gynecology. Kyoto.
Journal of Alabama State Medical Association. Montgomery.
Journal of Allergy. St. Louis.
Journal of Anatomy. London.
Journal of the Arkansas Medical Society. Fort Smith.
Journal of Bacteriology. Baltimore.
Journal of Biological Chemistry. Baltimore.
Journal of Bone and Joint Surgery. Boston.
Journal of Clinical Investigation. New York.
Journal of Comparative Neurology. Philadelphia.
Journal of Connecticut State Medical Society. New Haven.
Journal of Experimental Medicine. New York.
Journal of the Florida Medical Association. Jacksonville.
Journal of General Physiology. New York.
Journal of Hygiene. London.
Journal of Immunology. Baltimore.
Journal of the Indiana State Medical Association. Indianapolis.
Journal of Industrial Hygiene and Toxicology. Baltimore.
Journal of Infectious Diseases. Chicago.
Journal of Iowa State Medical Society. Des Moines.
Journal of Kansas Medical Society. Topeka.
Journal of Laboratory and Clinical Medicine. St. Louis.
Journal-Lancet. Minneapolis.
Journal of Laryngology and Otology. London.
Journal of Medical Association of Georgia. Atlanta.
Journal of Medical Society of New Jersey. Trenton.
Journal de Médecine de Lyon.
Journal of Mental Science. London.

*Cannot be lent.

Journal of Michigan State Medical Society. Lansing.
Journal of Missouri State Medical Association. St. Louis.
Journal of Nervous and Mental Disease. New York.
Journal of Neurology and Psychopathology. London.
Journal of Nutrition. Philadelphia.
Journal of Obstetrics and Gynaecology of British Empire. Manchester.
Journal of Oklahoma State Medical Association. McAlester.
Journal of Oriental Medicine. Dairen, South Manchuria.
Journal of Pathology and Bacteriology. Edinburgh.
Journal of Pediatrics. St. Louis.
Journal of Pharmacology and Experimental Therapeutics. Baltimore.
Journal of the Philippine Islands Medical Association. Manila.
Journal of Physiology. London.
Journal of South Carolina Medical Association. Greenville.
Journal of State Medicine. London.
Journal of Tennessee State Medical Association. Nashville.
Journal of Thoracic Surgery. St. Louis.
Journal of Tropical Medicine and Hygiene. London.
Journal of Urology. Baltimore.
Kentucky Medical Journal. Bowling Green.
Klinicheskaya Meditsina. Moscow.
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Lancet. London.
Laryngoscope. St. Louis.
Lattante. Parma.
Lisboa Médica.
Maine Medical Journal. Portland.
Medical Annals of District of Columbia. Washington.
Medical Bulletin of the Veterans' Administration. Washington, D. C.
Medical Journal of Australia. Sydney.
Medical Press and Circular. London.
Medichniy Zhurnal. Kiev.
Medicina. Mexico City.
Medicine. Baltimore.
Medizinische Klinik. Berlin.
Medizinische Welt. Berlin.
Mémoires de l'Académie de Chirurgie. Paris.
Military Surgeon. Washington, D. C.
Minerva Medica. Turin.
Minnesota Medicine. St. Paul.
Monatsschrift für Geburtshülfe und Gynäkologie. Berlin.
Monatsschrift für Kinderheilkunde. Berlin.
Monatsschrift für Psychiatrie und Neurologie. Berlin.
Münchener medizinische Wochenschrift. Munich.
Nature. London.
Nebraska State Medical Journal. Lincoln.
Nederlandsch Tijdschrift voor Geneeskunde. Haarlem.
New England Journal of Medicine. Boston.
New Orleans Medical and Surgical Journal.
New York State Journal of Medicine. New York.
Norsk Magasin for Lægevidenskapen. Oslo.
Northwest Medicine. Seattle.
Nourrisson. Paris.
Novyy Khirurgicheskiy Arkhiv. Dnepropetrovsk.
Ohio State Medical Journal. Columbus.
Oto-Rino-Laringologia Italiana. Bologna.
Paris Médical.
Pathologica. Genoa.
Pediatria. Naples.
Pennsylvania Medical Journal. Harrisburg.
Philippine Journal of Science. Manila.
Policlinico (Pract. Sect., Med. Sect. and Surg. Sect.). Rome.
Polska Gazeta Lekarska. Lwów.
Practitioner. London.
Prensa Médica Argentina. Buenos Aires.
Presse Médicale. Paris.
Problemy Tuberkuleza. Moscow.
Progrès Médical. Paris.
Psychiatric Quarterly. Utica, N. Y.
Psychoanalytic Quarterly. Albany, N. Y.
Public Health Reports. Washington, D. C.
Puerto Rico Journal of Public Health & Tropical Medicine. San Juan.
Quarterly Bulletin of Health Organisation of League of Nations. Geneva.
Quarterly Journal of Medicine. Oxford.
Radiology. Syracuse, N. Y.
Radiophysiologie and Radiothérapy. Paris.
Rassegna di Terapia e Patologia Clinica. Naples.
Review of Gastroenterology. New York.
Revista Argentina de Cardiología. Buenos Aires.
Revista Brasileira de Leprologia. São Paulo.
Revista de Cirugía. Buenos Aires.
Revista de Medicina y Cirugía de la Habana. Havana.
Revista Médica Cubana. Havana.
Revista de Parasitología, Clínica y Laboratorio. Havana.
Revista de la Sociedad Argentina de Biología. Buenos Aires.
Revista de Tuberculosis del Uruguay. Montevideo.
Revue Française de Gynécologie et d'Obstétrique. Paris.
Revue Française de Pédiatrie. Paris.
Revue Médico-Chirurgicale des Maladies du Foie. Paris.
Revue de la Tuberculose. Paris.
Rhode Island Medical Journal. Providence.
Riforma Medica. Naples.
Rinascenza Medica. Naples.
Rivista di Patologia e Clinica della Tubercolosi. Bologna.
Schweizerische medizinische Wochenschrift. Basel.
Science. New York.
Semana Médica. Buenos Aires.
South African Medical Journal. Cape Town.
Southern Medical Journal. Birmingham, Ala.
Southern Surgeon. Atlanta, Ga.
Southwestern Medicine. Phoenix, Ariz.
Sovetskaya Khirurgiya. Moscow.
Sovetskiy Vrachebnyy Zhurnal. Leningrad.
Sperimentale. Florence.
Strahlentherapie. Berlin.
Strasbourg Médical.
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Texas State Journal of Medicine. Fort Worth.
Tubercle. London.
Ugeskrift for Læger. Copenhagen.
United States Naval Medical Bulletin. Washington, D. C.
Upsala Läkareförenings Förhandlingar. Uppsala.
Virginia Medical Monthly. Richmond.
Vrachebnoe Delo. Kharkov.
Western Journal of Surgery, Obstetrics and Gynecology. Portland, Ore.
West Virginia Medical Journal. Charleston.
Wiener Archiv für innere Medizin. Vienna.
Wiener klinische Wochenschrift. Vienna.
Wiener medizinische Wochenschrift. Vienna.
Wisconsin Medical Journal. Madison.
Yale Journal of Biology and Medicine. New Haven, Conn.
Zeitschrift für Geburtshülfe und Gynäkologie. Stuttgart.
Zeitschrift für die gesamte experimentelle Medizin. Berlin.
Zeitschrift für Hygiene und Infektionskrankheiten. Berlin.
Zeitschrift für Kinderheilkunde. Berlin.
Zeitschrift für klinische Medizin. Berlin.
Zeitschrift für Tuberkulose. Leipzig.
Zentralblatt für Chirurgie. Leipzig.
Zentralblatt für Gynäkologie. Leipzig.

SUBJECT INDEX

This is an index to all the reading matter in THE JOURNAL. In the Current Medical Literature Department only the articles which have been abstracted are indexed.

The letters used to explain in which department the matter indexed appears are as follows: "BI," Bureau of Investigation; "E," Editorial; "C," Correspondence; "ab," abstracts; the star (*) indicates an original article in THE JOURNAL.

This is a subject index and one should, therefore, look for the subject word, with the following exceptions: "Book Notices," "Deaths," "Medicolegal Abstracts" and "Societies" are indexed under these titles at the end of the letters "B," "D," "M," and "S." State board examinations are entered under the general heading State Board Reports, and not under the names of the individual states. Matter pertaining to the Association is indexed under "American Medical Association." The name of the author, in brackets, follows the subject entry.

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For index to Organization Section see page 207B.

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SOCIETIES

Acad.—Academy *Med.—Medicine*
Am.—American *Nat.—National*
A.—Association *Phar.—Pharmaceutical*
Coll.—College *Phys.—Physicians*
Conf.—Conference *Rev.—Revision*
Cong.—Congress *Ry.—Railway*
Conv.—Convention *Soc.—Society*
Dist.—District *Surg.—Surgery*
Hosp.—Hospital *Surgs.—Surgeons*
Internat.—International *S.—Surgical*
M.—Medical

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Cooperatives and Medical Service

A Discussion by the Bureau of Medical Economics

The cooperative movement is not new, although only in recent years has it begun to attract national attention in the United States. In 1844 the twenty-eight Rochdale Weavers started their first store and established the principles that have proved essential to success. At present the Cooperative National Alliance claims over 100,000,000 members in its affiliated societies. These societies are found in every continent and in almost every nation. They have become a significant part of the economic and social life of the low income classes over large sections of the globe.

Certain fundamental principles developed by these Rochdale Weavers have been found essential to success in nearly all cooperative undertakings. Where these principles have been neglected, in the United States at least, failures have been far more numerous than successes. There are few communities in the northern industrial and agricultural states in which at some time in the past there have not been cooperative undertakings. Some disappeared because they failed to apply the tested principles, but in many cases the most faithful application was unable to establish a permanent undertaking.

EARLY BUYING CLUBS

The earliest and most persistent of these unsuccessful types was some form of "pool purchase" or "buying clubs." Such organizations simply collect orders for goods from a group and use the funds thus assembled as a means of buying at wholesale. The goods are then distributed among the members and the resulting price savings are depended on to hold the organization together.

This form of so-called cooperation has almost invariably failed. All the members of such groups seldom wished to place an order at the same time; the delay and inconveniences created so much dissatisfaction that the plan soon collapsed. No other country has had so wide an experience with this unsuccessful form of cooperatives as the United States. In the late seventies and eighties of the last century the National Grange formed several thousand such groups and at one time their business was so large as to call for the erection of warehouses and the formation of extensive buying agencies. Almost the only thing left of this great movement is the firm of Montgomery-Ward & Co., "the original Grange Supply House," now entirely removed from any such plan of purchasing.

Cooperation is primarily an "economy" or "saving" scheme. It seeks to save for consumers a percentage of excessive costs of competitive distribution. The cooperative buys at wholesale, or direct from the producer, and then distributes the goods with a low cost of administration through sales at regular retail prices. The manner of distribution of the resulting economies seems to be the secret of solidarity and continuous growth. This distribution is sometimes called a "patronage dividend." Each member having purchased one or more shares, at rather moderate cost, to create the necessary capital receives his "dividend"—usually monthly—in the form of a percentage of the purchases he has made during the previous month. The expectation of this dividend retains the interest of the cooperator and prevents him being lured away by "bargain offers" elsewhere. The savings and consequent dividends are usually small at first but grow steadily with the expansion of the plan and consequent possibilities of the saving. This arrangement insures "market control" and thereby lays the ground for expansion.

EMOTIONAL FACTORS IN COOPERATIVES

Success in the early stages of growth also seems to depend on a sort of "evangelical" attitude of the cooperators. Cooperative literature is filled with emotional enthusiasm and exaggerated optimism concerning the "mission" of cooperation to transform the present industrial system. This emotional enthusiasm makes it possible to secure skilled administrative talent at less cost than that sustained by competitive profit making establishments. Cooperators never tire of telling how the managers of great wholesale societies, handling a turnover that sometimes reaches hundreds of millions of dollars annually, frequently refuse salaries by profit making concerns many times larger than those they receive in the cooperatives.

This emotional solidarity has been hard to arouse in the United States, partly because economic pressure, even among the low income classes, has been less and more irregular than in other countries and partly because of the diversified nationalities which make up our population. The earlier, successful cooperatives in this country were largely among colonies of foreign-born people who were familiar with cooperation in their native countries and who were held together here by the ties of nationality.

The rapid growth of cooperatives since 1930 may possibly be due to the continuous, wide economic pressure which increased a sense of solidarity among those having low incomes. Such rapid growth, confined to the depression years, does not justify the conclusion that economic recovery will necessarily bring a decline in the rate of cooperative expansion. The hard struggle in the establishment of a genuine cooperative comes in the early years. Once it is established its own momentum carries it forward.

NEW FORMS OF COOPERATIVES

As the cooperative movement has grown it has expanded into some forms not found in the original organizations. The first cooperatives in nearly every country were groceries and bakeries furnishing the absolute necessities of life at somewhat below competitive prices when the "patronage dividends" were included in the calculations. Control of the market made possible expansion into productive cooperation. However, even in the nations with the largest percentage of the population already enrolled in consumers' cooperatives, the operation of productive establishments has been the least successful form.

The United States has had a wide experience with unsuccessful productive cooperatives. The Grange, at the period already mentioned, also entered the field of production on quite a wide scale, but it is doubtful whether today any trace of these efforts remains. At nearly the same period the Knights of Labor, and later several other unions, entered on a similar series of experiments. Practically all of the coal mines, factories and cigar shops that were operated on a cooperative plan have now disappeared.

COOPERATIVE PACKERS AND FACTORIES

Cooperative creameries, cheese factories and, to a lesser extent, canneries have been more successful. Perhaps this is because it is possible to apply something closely analogous to the "patronage dividend" in this field. Savings through economical operation and efficient marketing can be distributed as a dividend in proportion to the value of the raw materials furnished by the farmer.

Even in Europe, where large cooperative markets exist, the productive undertakings have been limited almost entirely to staple and established industries where fluctuations in the output are least and technological changes are less revolutionary. Nowhere has cooperation entered the field of semimonopolistic industry such as steel or railroads, or into fields where technological changes are rapid, as in that of automobiles.

HOUSING COOPERATIVES

Another field in productive operation in which cooperation has been able to make little progress is that of housing. In the United States, much is made of one instance of what is called cooperative housing—that of the United Garment Workers in New York. As a matter of fact this was made possible only through the backing of a very strong union with large financial resources, exceptional solidarity and its own banking privileges. The proponents of cooperation have very little to say about the "cooperative apartments" which were built throughout the United States prior to 1929 and most of which have since failed with excessive losses to the "cooperators."

MARKETING COOPERATIVES

The marketing cooperatives, of which the most successful are those engaged in handling California fruits, although they have been developed to a considerable extent in the handling of wheat and some other crops, are but little different from ordinary competitive and capitalistic marketing agencies. They utilize all the methods of private industry, including extensive advertising and, in regard to the California fruit industry at least, the restriction of production and destruction of crops already produced.

MEDICAL PRACTICE IN COOPERATIVES

Just now there is quite a general attempt to attach to the cooperative movement some decidedly undesirable forms of medical practice. Medical service does not seem to lend itself to cooperative handling. There is no separation of employers and employees in its production

and certainly no need for "middlemen" in its distribution. Medical service cannot be bought at wholesale and sold at retail, and therefore there cannot be any "patronage dividend." Lacking these characteristics it is difficult to see how cooperation can enter this field without violating not only some of the fundamental principles of successful cooperation but also most of the principles of medical ethics on which suitable medical practice is based.

Attempts to organize "cooperative medical service" have generally failed to observe these fundamental principles. They did not start with the objective of abolishing "middlemen" in distributing medical service. On the contrary, the first thing every such organization has done was to introduce a new, harmful and wasteful group of "middlemen." These were introduced on the basis that they were necessary to "organize" the distribution of medical service. That is exactly the excuse used to justify "middlemen" in the industrial and commercial world. It is also exactly the same excuse that the racketeer uses when he starts about "organizing protection" for those from whom he demands tribute.

Forcing these "middlemen" into the distribution of medical service does something else that destroys one of the strongest arguments for cooperation. Cooperators have always given first consideration to the high quality of goods distributed. They propose to consume those goods themselves and, therefore, they want them as good as possible. They realize that adulteration and all other forms of deterioration of a product injures the consumer first of all. Public confidence in cooperation is largely based on this long tradition of high quality.

In medical service the quality depends to a large degree on the method of distribution. The moment medical service is distributed through an intermediary—a "middleman"—one of its most essential qualities is destroyed. When the physician distributes direct to a patient there is mutual confidence leading the patient to tell the physician the things necessary for a good diagnosis and compelling the physician to accept the heavy responsibility which insures his best efforts. The moment a medical service is either mechanized or distributed through a third party organization, the product—medical service—is diluted and adulterated.

The most competent and conscientious physicians refuse to deliver their services to such "cooperatives" under conditions that they know are destructive of the best results of their skill. They know that "distribution" through an individual, personal and confidential relation of physician and patient is an essential part of the service itself.

The difficulty of applying cooperative principles to medical service was clearly evident to Dr. James Peter Warbasse, who is a physician and who for many years has also been one of the leaders in the American cooperative movement. The only suggestion that he can make as to the application of cooperative principles in the field of medicine is that given in the following paragraph:[1]

> For Health service, use can be made of these cooperative societies or similar non-profit organizations controlled by consumers, such as hospitals, clinics, social service groups, insurance and fraternal societies, churches, and clubs. Upon these can be engrafted a medical service. Or new consumers' societies for such service may be established. Medical service in existing cooperative consumers' societies is already successfully in operation. It is standardized and efficient. A few examples have been cited.

What he really proposes, therefore, is that a medical service can be "engrafted" upon a cooperative just as it would be "engrafted" upon a fraternal society, church or club. The attempt to engraft service on such cooperative organizations, fraternal societies and clubs in Europe resulted in such a debauchery of medical service as to drive practically every nation, where such a system existed, into compulsory insurance. Even the powerful cooperatives of Belgium, which have gone further in this direction than any others, have found no real way to introduce medical service cooperatively. What they did was exactly what Dr. Warbasse suggested. They used their financial resources, solidarity and organization machinery to "engraft" a medical service upon their societies. They set up clinics, the operation of which is practically identical with the larger clinics in this country.

When compulsory health insurance was introduced in England the cooperatives sought to find a way by which they could provide medical service for their members. The only thing they could suggest was to "engraft" a medical service in the form of clinics, through which they proposed to deliver medical service. This plan was promptly vetoed by the ministry of health and nothing further has been heard of it.

Wherever the cooperatives have used their financial resources and their organization machinery to build up club medical practice the result has been to supply their members with an inferior form of contract medical service. This has been true in this country in the few instances in which attempts at such "cooperative" organization have been made. Any cooperative that would follow a similar policy in regard to distribution of food would be at once condemned by a sincere cooperator. Such proposals gain a hearing only because cooperators are no more able than others of the lay public to judge of the quality of medical service.

1. Warbasse, J. P.: The Doctor and the Public, New York, Paul B. Hoeber, Inc., 1935, p. 522. Nor does he offer anything more constructive in his later work, "Cooperative Democracy," New York, Harper & Bros., 1936.

Works Progress Administration Activities

(Continued from page 101B)

VENEREAL DISEASE

In the field of syphilis there may be mentioned a reseach and statistical survey at Johns Hopkins Hospital with the collaboration of the United States Public Health Service; the compilation of data on more than 3,500 cases intended to throw light on the adequacy of treatment in twenty-five public clinics in West Virginia, for the use of the state health department, and at Newark, N. J., a project to secure attendance for physical examination of members of families of persons known to have venereal disease. The New York Tuberculosis and Heart Association is cooperating with the New York City Department of Health in a Works Progress Administration project for the compilation of statistics for a study of syphilis and heart disease. Approximately 100,000 records have been collected and checked for a study of syphilis and eye disease as a part of the same project. Plans for the coming year include a survey of the incidence of syphilis among tuberculous patients in hospitals and another on the cost of syphilis and gonorrhea in New York City. The Works Progress Administration is cooperating under the direction of the New York City Department of Health in the attack on syphilis and gonorrhea among the indigent of the city. Expansion of diagnostic and treatment services, including clinics for vaginitis in children and evening venereal clinic sessions for men and women unable to attend in the daytime, has been made possible by assignment of physicians, nurses, orderlies and social service workers on the Works Progress Administration payroll.

HOSPITAL MANAGEMENT

Of interest to hospital superintendents as well as physicians are two New York City projects: one to investigate procedures in use in determining eligibility of patients for free outpatient care and to formulate standards; this work is under the immediate supervision of the chairman of the outpatient section of the Hospital Conference; the second, to establish central indexes of patients in clinics, and to analyze discharges from public and private hospitals and convalescent homes during 1933 for the purpose of evaluating services rendered. A comprehensive report on 16,508 cases of acute appendicitis discharged from ninety-two hospitals was completed in the spring of 1936 and turned over to the New York Academy of Medicine for preparation for publication.

In New York City approximately 3,800 persons, ranging from psychologists, nurses and other professional groups, to kitchen and laundry workers, have been supplied by the Works Progress Administration for service in the city's hospitals. Similar aid on appropriately smaller scales has been given in numerous other cities and small towns throughout the country, where the pressure of unusual destitution on the one hand and the fall in tax receipts on the other were preventing public hospitals from fulfilling their function properly.

As examples of individual projects of this nature there may be mentioned a project in Montgomery County, Ala., for the maintenance of medical and dental clinics and for continuing established clinics of the health department for tonsillectomies, obstetrics, orthopedics, general diagnosis and tuberculosis for the benefit of unemployables on direct relief; a project to supply additional personnel to the Illinois Eye and Ear Infirmary, stated to have made possible the treatment of double the number of cases in all departments, and a New York City project supplying sixty-three laboratory technicians and helpers to effect improvement in the standard of laboratory care for indigent tuberculosis patients.

CRIPPLED CHILDREN

The Works Progress Administration has augmented facilities for treatment and education of crippled children in many localities throughout the country. Orthopedic clinics are operating as divisions of general clinics established or aided by the Works Progress Administration in many cities and smaller places. Several projects provide for medical and nursing attention to crippled children at local swimming pools, with approval of their physicians. A special purpose of one such project in New York City, sponsored by a medical committee including physicians eminent in orthopedic work, is to ascertain the suitability for use at such pools of the technic employed at Warm Springs Foundation. New physical therapy pools have been constructed in connection with public hospitals in a considerable number of cities, including among others Indianapolis, Ann Arbor, Minneapolis, Atlantic City and Tucson. A survey to locate and arrange for orthopedic attention to crippled children is in operation in Pennsylvania.

PSYCHIATRY

Two surveys of interest to the psychiatrist are (1) a study of the psychiatric reports on patients in the mental hygiene clinics of New York City, to investigate the influence of race and nationality on the incidence and problems of mental disease, and (2) a study of the effects of eco-

nomic depression on mental diseases, under the sponsorship of the Illinois State Psychopathic Institute.

In hospitals for the insane, services supplementary to the regular treatment but believed to have therapeutic value are being carried out by Works Progress Administration workers. In the children's psychiatric wards of Bellevue Hospital, puppet shows are being experimented with as a psychotherapeutic measure and as a means of investigating the social life of the patients. In a number of hospitals, including the East Mississippi Hospital for the Insane at Meridian, Miss., women trained in "beauty parlor" work have given manicures, finger waves, "facials" and other "beautifying" services to women patients, as an aid to social adjustment and restoration of self respect and pride in appearance, and general improvement in morale. Recreational units of the Works Progress Administration carried on outdoor activities for adolescent boys and for adults in the psychiatric wards of Bellevue Hospital during the summer. *(To be continued)*

Rural Medical Service

NOTE.—*This is the fourteenth of a series of articles on Rural Medical Service, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

Recognition of the value of medical service depends largely on the education and intelligence of the population. An ignorant, illiterate and socially backward community will prefer "patent" medicines, home remedies, witch doctors, quacks or cultists even when its residents recognize that they are sick. Some forms of sickness are seldom recognized by the ignorant at the time when medical service is helpful. Whole sections of the population had to be educated to the fact that they were suffering from hookworm disease before there was any recognition of the need for medical service.

Desire also depends to a large degree on native intelligence and education. Less intelligent mothers often prefer untrained midwives to trained obstetricians. Physicians in many of the counties studied report that patients finally call a qualified physician only after they have exhausted the resources of nostrum and home-made medication. They are even less able than the better informed classes to recognize the importance of standards of education and ethics. Recognition of the value of and a desire for good medical service may, to a considerable degree, be created by education, but such education is almost inevitably lacking in the localities without good medical service.

Even if good medical service is desired, it cannot usually come into a community unless the demand for it is supported by adequate purchasing power.[4] The most important factor in determining the character and extent of medical service in any community is the economic one. A physician cannot give any sort of medical service if he cannot live, and he cannot give good service without an income sufficient to procure the essential technical and educational equipment.

A number of indexes of economic conditions in the counties studied were analyzed to determine the possible demand for medical services. These included density of population, value of farms, average annual income, percentage of persons making income tax returns, number of persons on relief, annual per capita retail sales, automobiles owned and savings deposits for nearly all counties, and numerous other factors for a large number of these counties. Secretaries of state medical societies, reports of state planning boards and other publications were consulted to obtain as complete a survey as possible of the localities in which it appeared medical services might be deficient.

The sections in which the supply of physicians, in relation to population, is exceptionally low fall into two quite distinct classes. One class of counties is on the margin of settlement, in mountainous, arid, national forest or grazing sections in which the population is actually too scarce to support even one physician for 2,000 persons. In some of these counties the population is increasing, in others it is declining. All of them lack the elements of permanently adjusted society, concentrated population and, in general, the higher and more complex social organization that can maintain modern educational, medical and other social services. Some of these counties in the "dust bowl" near or west of the hundredth meridian have been fairly prosperous in "wet" years and may then have had more medical and other facilities. Should rainfall increase, population might return, including physicians, as has been the case several times in the past. The counties in the "cut-over" sections of Michigan and Minnesota also really belong in this class. They now have a declining population and their future depends on forestation or other land-use policy rather than on present characteristics.

The other class of counties, located principally in the Appalachian-Ozarks, cotton and some sea-

4. An Introduction to Medical Economics, Chicago, Bureau of Medical Economics, American Medical Association, 1935, pp. 49-56.

coast regions, presents a different situation and creates much different problems. These usually have at least the average density of population of rural areas, a fairly old and established but backward economic and social organization, a high percentage of illiteracy, tenantry and extreme poverty, and a general lack of the more recently developed features of modern civilization. These sections not only have less medical services than the average for the nation but also have fewer and poorer schools, teachers, banks, amusement facilities and also less desirable food, clothing and homes.

The incomes of the population are too low to provide or sustain the so-called higher and more recently developed social factors without deprivation of other things that are necessary to health. In some of these communities the average annual retail sales per capita are between $50 and $100. Such an average means that many families have less than half this amount to spend. Many studies have placed the annual per capita expenditure necessary to secure good medical service at between $20 and $30. Manifestly no such sum can be expended by these families.

If good medical service is to be provided in these localities, either general incomes must be increased or the fact frankly faced that the remainder of the nation must assist the residents of such communities to obtain not only medical service but food, clothing, homes, education and other privileges of modern society. Present indications are that these counties are receiving all the medical care that they demand and considerably more than they can pay for. No evidence has been found to show that the people who live in these counties have complained of any lack of medical service. Neither have they complained of lack of schools, libraries, electric lights, telephones and other things which urban dwellers value highly. This is confirmed by replies from the secretaries of state medical societies, who are unanimous in reporting that no such complaints as to lack of medical service, and practically no requests for additional physicians, have been received from these counties. So long as these economic conditions exist there will be little increased recognition of the need or value and no effective demand for better medical service.

There has been much criticism of an alleged reluctance on the part of physicians to go into rural districts or to remain there. Because the medical profession has a very lively sense of self criticism, this indictment has frequently found expression in medical publications and meetings.

The factors that influence the movement of the members of a profession among a population of 125,000,000 spread over a nation as large and complex as the United States are so many and so diversified as to defy analysis, much less conclusions as to their effect. Listing a few of the trends and tendencies may serve to indicate this complexity and may also suggest some reasons for the more significant movements.

(To be continued)

The Home of the American Medical Association

NOTE.—*This is the fourteenth of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

DIVISION OF DRUGS, FOODS AND PHYSICAL THERAPY—Continued

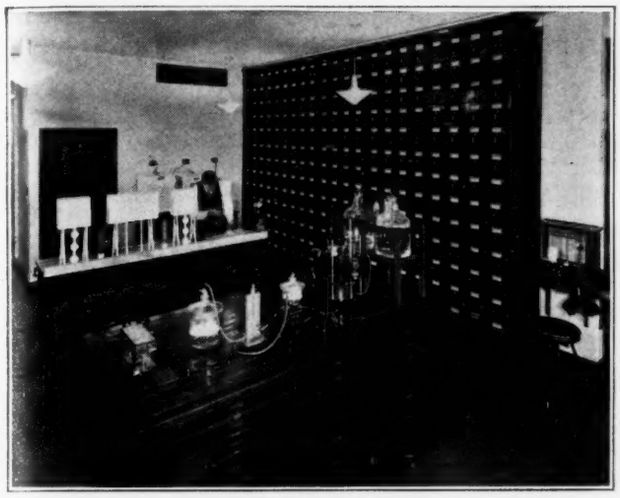
On proceeding eastward in the administrative offices of the Division of Drugs, Foods and Physical Therapy, one enters the departmental library of the Division. This is devoted chiefly to chemical books for the Laboratory and to various bound volumes of chemical and biochemical publications. It contains a file of the principal pharmacopeias of the world and is the source of information for pharmaceutical formulas of various sorts. It also contains the more important reference textbooks dealing with drugs, foods or physical therapy.

CHEMICAL LABORATORY

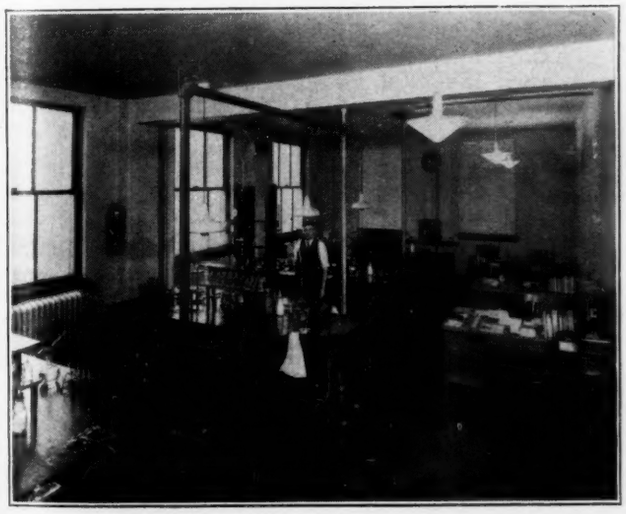
East of the library is the A. M. A. Chemical Laboratory. This was founded in 1906 to aid the Council on Pharmacy and Chemistry in determining the chemical constitution of the drugs submitted and to elaborate standards for the purity of products. The description of all chemical drugs in announcements of acceptance by the Council is based on the painstaking work done in the Laboratory. Besides the Director, Dr. Leech, the staff consists of four Ph.D. chemists, a laboratory assistant and a stenographer. The work of the Chemical Laboratory has changed progressively with the advance of science as applied in the pharmaceutical fields. The recent remodeling of the building permitted the Laboratory to have facilities so that it could be competent to handle the increasingly difficult problems presented to it. Besides investigating products that are sold to the medical profession, the Laboratory also spends a portion of its time analyzing "patent medicines" for the Bureau of Investigation. This at times is an exceedingly difficult procedure.

The main portion of the Laboratory is a room in which filtered air is circulated by force, thus

eliminating most of the particles of dust and soot, which interfere with the determination of very small amounts of material. The room is equipped with the usual laboratory tables provided with the modern conveniences. In addition the Laboratory has such equipment



A view of the Chemical Laboratory; Joel B. Peterson, Ph.D., of the Laboratory staff is in the background.



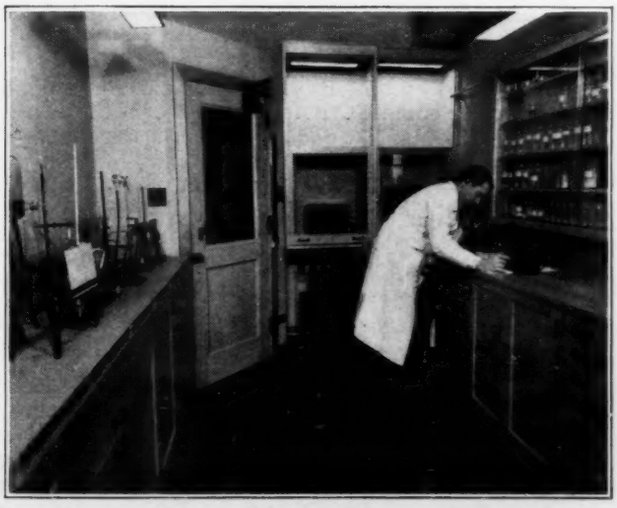
George W. Collins, Ph.C., Sc.D., working in the Chemical Laboratory on an alkaloidal separation.

as constant temperature bath, both for low and higher temperature, refrigerator, the latest apparatus for vacuum drying for electrometric titrations, and most of the refined type of equipment necessary for this work. It is provided with an ample store room. Another room contains the hoods, centrifuge, muffle furnaces, reagent cases and the like.

A valuable addition to the Laboratory is the Optical Room, which contains a spectograph with an accompanying photographic enlarger, and much other optical equipment. The Laboratory is thus able to do analysis either by means of emission spectrums or by means of absorption spectrums. Every product now submitted to the A. M. A. Chemical Laboratory is examined spectrographically and the plate kept as a permanent record.

Because one of the tendencies of drug therapy is the isolation of extremely active material, it was necessary to provide a room for such analysis. Formerly the average pharmaceutical product was available in large amounts and at a relatively moderate cost. Now many of the newer products are available only in extremely small amounts (such as glandular principles) and are exceedingly costly; in fact, one product recently analyzed is worth $2,000 a gram. This made necessary therefore the equipping of a room where very accurate micro-analysis could be undertaken. The room

Optical Laboratory; Henry R. Kreider, Ph.D., using the spectrograph.



The Micro Analytical Laboratory; E. W. Schoeffel, Ph.D., using the Kofler micro melting point apparatus.

is air conditioned within a limit of one-fourth degree plus or minus in temperature and 1 per cent plus or minus in humidity. It is equipped with the latest apparatus, much of which it was necessary to import, since the practice of microchemistry is relatively new in the United States.

(To be continued)

Official Notes

MEDICAL EXHIBITS

April 2-11—Detroit-Michigan Exposition, Detroit. Exhibit material on Beaumont.
April 4-11—Women's Institute, Salt Lake City, Utah. Exhibits dealing with general health problems.
April 4-11—West Virginia State College, Institute, W. Va. Exhibit on the dangers of self diagnosis and self medication.
April 5-9—Meeting of Florida State Medical Association, St. Petersburg. Exhibits on objectionable obesity cures and mechanical nostrums.
April 12-14—Meeting of Arkansas State Medical Society, Little Rock. Exhibits on syphilis and on health promotion.
April 13-15—Meeting of Tennessee State Medical Association, Knoxville. Exhibits on objectionable obesity cures, mechanical nostrums, medical economics, syphilis, and health information for the public by the physician.
April 16—Western Reserve University School of Medicine, Cleveland. Exhibit on syphilis.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:
April 5—Salt Lake County Medical Society, Salt Lake City.
April 5 and 6—Woman's Institute Week Program, Salt Lake City.
April 8.—Denver Tuberculosis Society, Denver.
April 12 and 13—Tenth District Nurses' Association, Eau Claire, Wis.
April 15—Parent Teacher Association, Oshkosh, Wis.
April 22—Rotary Club, Evanston, Ill.

DR. FRANK J. CLANCY:
April 8—Consumer Conference of Greater Cincinnati, Cincinnati.
April 20—Virginia Polytechnic Institute, Blacksburg, Va.
April 23—University of Maryland Medical Forum, Baltimore.

DR. MORRIS FISHBEIN:
April 5, 6 and 7—Florida Medical Association, Inc., St. Petersburg.
April 11—Medical Society of South Carolina, public meeting, Charleston.
April 12—Special meeting of Medical Society of South Carolina, Charleston.
April 13 and 14—South Carolina Medical Association, Columbia.
April 14—Laying corner stone, State Tuberculosis Sanatorium, Columbia, S. C.
April 15—Faculty Association of New York Post-Graduate Medical School, New York City.
April 22—Staff meeting, University of Minnesota Hospitals, Minneapolis.
April 22—Graduating class medical technologists, University of Minnesota, Minneapolis.

DR. CHARLES GORDON HEYD:
April 9—Annual Meeting of Nu Sigma Nu Fraternity, New York City.
April 12—Arkansas Medical Society, Little Rock.
April 13—Tennessee Medical Society, Knoxville.
April 17—Clinical Day, University of Buffalo, Buffalo, N. Y.
April 21—Medical Association of the state of Alabama, Birmingham.

DR. R. G. LELAND:
April 5—Alumni Group of Dentists of Loyola University, Chicago.
April 6, 7 and 8—Conference of State and Territorial Health Officers with the Public Health Service, Washington, D. C.
April 15—Faculty and Students of Iowa State University, Iowa City.

DR. PAUL A. TESCHNER:
April 5 and 6—Clinical Society, St. Joseph, Mo.
April 14—Vocational Conference, De Kalb, Ill.
April 15—Joint Meeting, Kentucky Educational Association and Kentucky Health and Physical Education Association, Louisville, Ky.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title Your Health. The topics and speakers for the next three programs are:

April 6. How to Choose a Doctor, R. G. Leland, M.D.
April 13. Indigestion, Paul A. Teschner, M.D.
April 20. A Fight Half Won (Tuberculosis), W. W. Bauer, M.D.

The time of the broadcast is Tuesday afternoon at 3 o'clock central standard time (4 o'clock eastern time, 2 o'clock mountain time, 1 o'clock Pacific time).

Medical Legislation

Medical Bills in Congress

Changes in Status.—H. R. 5331 has passed the House, with an amendment, proposing to accord certain benefits to World War veterans suffering with paralysis, paresis or blindness or who are helpless or bedridden. H. R. 5779, making appropriations for the Departments of State and Justice and for the Judiciary, and for the Departments of Commerce and Labor, has passed the House. Title IV of the bill, relating to the Department of Labor, includes an appropriation of $18,000 for the investigation of silicosis.

Bills Introduced.—S. 1977, introduced by Senator Steiwer, Oregon, proposes to provide that, in the administration of the World War Adjusted Compensation Act, members of the Student Army Nursing Corps (the Army School of Nursing) are to be considered as "veterans" entitled to "adjusted service credit." H. R. 5822, introduced by Representative Boileau, Wisconsin, proposes to authorize an appropriation of $3,000,000,000 to continue and extend the federal works program. With respect to medical and dental care the bill provides that the minimum standard of direct relief shall be as follows: "Sufficient to preserve physical fitness and appearance, including necessary devices and appliance and special medical or surgical treatment or care by physicians or institutions of the relief recipient's choice, subject to schedule of uniform fees as determined upon by local relief administration." H. R. 5854, introduced by Representative Lea, California, proposes to amend the act creating the Federal Trade Commission to declare unlawful unfair or deceptive acts or practices in commerce whether or not involving unfair methods of competition. The bill specifically provides that it shall be unlawful for any person, partnership or corporation to disseminate, or cause to be disseminated, any false advertisement

(1) by United States mails, or in commerce by radio broadcast or otherwise, for the purpose of inducing or which is likely to induce, directly or indirectly, the purchase of food, drugs, devices or cosmetics; or (2) by any means, for the purpose of inducing, or which is likely to induce, directly or indirectly, the purchase in commerce of food, drugs, devices or cosmetics. "False advertisement" is defined to mean an advertisement which makes an untrue statement of a material fact or omits to state a fact necessary in order to make any word or words, statement, design or device made or used, in the light of the circumstances under which made or used and to which applicable, not misleading in a material respect. H. R. 5892, introduced (by request) by Representative Randolph, West Virginia, proposes to provide domiciliary or hospital care, including medical treatment or temporary domicile, for certain employees or former employees of the United States, and their dependents. This bill would authorize the United States Civil Service Commission to acquire tracts of land and to erect and maintain thereon buildings suitable for the supplying of the services contemplated by the bill. Civil service employees, annuitants retired under the provisions of the Civil Service Retirement Act, and dependent relatives of retired employees or of deceased annuitants who may be in necessitous circumstances are named as the beneficiaries of the bill.

Delaware

Bill Introduced.—House Substitute for H. 464 proposes to create a state board of chiropractic examiners to examine and license persons to practice chiropractic. The bill proposes to define chiropractic as "the science of locating and removing any interference with the transmission of nerve energy." A license to practice chiropractic is not to entitle the holder thereof to use drugs or to practice surgery, osteopathy, obstetrics dentistry, optometry or chiropody.

District of Columbia

Bills Introduced.—S. 1961, introduced by Senator Reynolds, North Carolina, proposes to provide for the issuance of a license to practice the healing art in the District of Columbia to Dr. William Hollister.

Change in Status.—H. R. 5896, introduced by Representative Norton, New Jersey, has been reported to the House with recommendation that it pass, proposing to provide for the prevention of blindness in infants born in the District of Columbia. S. 1834 is the companion bill in the Senate.

Minnesota

Bills Introduced.—S. 1158, to amend the medical practice act, proposes, among other things, (1) to authorize the board of medical examiners to suspend, as well as to refuse to grant or to revoke licenses and (2) to denominate as "immoral, dishonorable or unprofessional conduct," which is a ground for the revocation of a license, "conduct unbecoming a person licensed to practice medicine or detrimental to the best interests of the public." S. 1173 and H. 1458 propose (1) to require the board of basic science examiners to issue, without examination, a certificate in the basic sciences to certain naturopathic practitioners and (2) to define the practice of naturopathy as "the science and practice of healing by the application of electrotherapy, magnetotherapy, and dietetics."

Ohio

Bills Introduced.—H. 560 proposes to enact a separate naprapathy practice act and to create a board of naprapathy examiners to examine and license applicants for licenses to practice naprapathy. The bill proposes to define naprapathy as "the diagnosis and treatment of shrunken connective tissues and allied pathology by methods agreed upon by the board, but it shall not include major surgery, nor the administration or prescription of any drug or medicine included in materia medica, and it shall not be deemed to be a branch of the practice of medicine or surgery . . . neither shall it include obstetrics, optometry and dentistry." H. 571 proposes apparently to eliminate the office of coroner and to substitute for it a medical examiner system. The bill proposes that in each county the prosecuting attorney shall appoint as a medical examiner a doctor of medicine possessing special knowledge of pathology. The medical examiner is to be given jurisdiction to determine the cause of death whenever any person dies within his county from violence, by casualty, by suicide, suddenly when in apparent health, when unattended by a physician, in any suspicious or unusual manner, within twenty-four hours after admission to any hospital or institution, or in prison. The medical examiner is to be permitted to perform an autopsy if in his opinion it is necessary to determine the cause of death in any of the foregoing cases.

Pennsylvania

Bills Introduced.—H. 1411 proposes, among other things, to eliminate that portion of section 12 of the optometry practice act which provides that the act shall not apply to "the physicians or surgeons practicing under authority of license issued under the laws of this Commonwealth for the practice of medicine or surgery" and to substitute in its stead a provision that the act shall not apply to "persons selling spectacles and eye-glasses but who do not assume directly or indirectly to adapt them to the eye nor neither practice or profess to practice optometry." H. 1436 proposes that "On and after January 1st 1938 it shall not be lawful for any physician of the Allopathic or Homeopathic medical profession to pretend knowledge of a special or particular branch of Medicine and Surgery or to hold himself out to the public as a specialist in any particular branch or division of Medicine and Surgery" without having been examined and licensed by a medical specialist board, which the bill proposes to create. The medical specialist board is to be vested with "full authority to prescribe special standards of qualifications and experience for all physicians of the Allopathic and Homeopathic professions desiring to hold themselves out to the public as specialists and practitioners of any particular branch or division of Medicine and Surgery and to issue State Certificates of special licensure to physicians so qualified." The bill also proposes to make it a misdemeanor for any physician licensed as a specialist to split fees with a referring physician and to define the practice of medicine and surgery as "the system whereby medicines, drugs and surgical operations are prescribed and practiced by physicians and surgeons of the Allopathic and Homeopathic medical professions in Pennsylvania and does not include the healing art as practiced by doctors of Chiropractic or other drugless and non-surgical professions." H. 1697 proposes to appropriate $300,000 for the erection and equipping of an additional hospital for crippled children to be under the control, management and operation of the department of health. H. 1719 proposes to appropriate $800,000 for the erection and equipping of the Pennsylvania Institute for the Study and Treatment of Malignant Disease and Allied Conditions to be under the management and control of the department of health. The bill also proposes to appropriate $125,000 for the biennium beginning June 1, 1937, for the maintenance of the institution when established. H. 1750 proposes to enact a separate naturopathic practice act and to establish a state board of naturopathic education and licensure in the department of public instruction to examine and license applicants for

licenses to practice naturopathy. The bill proposes to define naturopathy as "a philosophy of healing embodying within itself a complete system of therapeutics, basing its treatment of all physiological dysfunctions and abnormal conditions of the body on the Natural Laws governing the body and maintaining life. This system includes the correlation of part with part, anatomically, physiologically, psychologically and chemically. It is the treatment of the body by any movements, adjustments or manipulations performed by the hands or by any instruments or appliances and the use of any physical forces such as air, light, water, heat, electricity or any of their derivatives or any other system or systems of therapeutics correlated with the above therapeutic measures and/or the use of herbs and plants and their derivations administered, applied, prescribed or dispensed, and minor surgery and obstetrics as a first aid and emergency measure." H. 1755 authorizes the formation of corporations to operate nonprofit hospital service plans whereby hospital care and service may be provided to subscribers to such plans by any hospital with which such corporations have contracts for such care and services. Such hospital service corporations are to be subject to the supervision and regulation of the insurance department. H. 1791 proposes a procedure whereby hospitals may be reimbursed by the state for treating and caring for indigent persons injured in motor vehicle accidents.

South Carolina

Bill Introduced.—H. 675 proposes to prohibit the retail sale or distribution "of that general class of synthetic drugs commonly known as barbiturates, or their compounds," except on the written prescription of a licensed physician or a person authorized to prescribe narcotic drugs.

Wisconsin

Bill Introduced.—A. 549, to amend the chiropractic practice act, proposes principally to require that after Sept. 1, 1937, applicants for licenses who are not registered in a school of chiropractic prior to that date or who do not hold a certificate of graduation issued before that date must submit "a certification of attendance of two years in a recognized school or college of liberal arts and sciences."

Woman's Auxiliary

Minnesota

"The Thirty Year Fight Against Tuberculosis" was the subject of the annual contest sponsored by the Minnesota Public Health Association and assisted by the state medical auxiliary. Essays of 800 words were written by both senior and junior high school students in the state. Winners of the ten best essays were given the opportunity to broadcast over WCCO in competition for the school trophy, and each of the ten winners was presented with an engraved gold medal. Awards were made by the Woman's Auxiliary to the Minnesota State Medical Association. Extra prizes were given by four auxiliaries to local contestants. Miss Kathryn Hohn of Crookston was named winner of this sixth radio essay contest and awarded the trophy for her school.

For the fourth consecutive year the Auxiliary to the Hennepin County Medical Society conducted a three day sale of articles made by patients at Glen Lake Sanitarium. The receipts were $1,066.20. The members of this auxiliary are to be congratulated on their success.

Members of the Auxiliary to the Ramsey County Medical Society are sponsoring a series of six popular plays to be reviewed by Mrs. Arthur Stewart.

Pennsylvania

The Woman's Auxiliary to the Philadelphia County Medical Society has arranged for a health institute to be held Tuesday, April 13, at the County Medical Society Building, southeast corner of Twenty-First and Spruce streets. Subjects of diversified interest, pertinent to health, will be discussed by those who, by training and experience, are qualified to speak authoritatively on these subjects. The morning session will convene at 10:30 a. m. Luncheon will be served at 12:30 and the afternoon session will begin at 2 o'clock.

Medical Economic Abstracts

BRITISH HOSPITAL CONTRIBUTORY SCHEMES

The expansion of hospital contributory schemes and the principles that should be observed in relation to medical practice are discussed in the supplement to the *British Medical Journal,* March 6, 1937, pages 114 and 115.

It is recognized that these schemes are for the benefit of those who cannot pay the full cost of hospital care but are able and willing to make some contribution toward it. More than 300 contributory schemes have been established in England, Wales and Scotland, a large number of them without any consultation with the local medical profession. The divisions and branches of the British Medical Association should exert their influence when new schemes or extensions of old ones are under consideration.

The British Medical Association suggests three fundamental principles to guide the medical profession when advice is given on contributory schemes. The first is the imposition of an income limit; there is no excuse for the utilization of contributory schemes by well-to-do persons; the limits should be between $1,000 and $1,500 annual income, according to the size of the families included. Another principle to which the association attaches great importance is the remuneration of the medical staff; the most popular method is the allocation of not less than 20 per cent of the hospital receipts from contributory schemes to a fund placed at the disposal of the visiting medical staff. In the third place, the criterion for admission should always be suitability for hospital treatment; outpatient departments now give much of the treatment that a general practitioner should provide; the association recommends that contributory scheme patients, except in an emergency, should be admitted to a hospital only on the recommendation of the attending practitioner. It also believes that the interests of all concerned are better served when the contributory scheme is organized on a regional basis by an independent committee rather than by a single hospital. The advantages of such a basis become even more apparent when the principles of contributory schemes are applied to municipal hospitals.

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, APRIL 10, 1937

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THE AMERICAN FOUNDATION STUDY OF MEDICAL CARE

(Abstract by the Bureau of Medical Economics)

NOTE.—*The American Foundation Studies in Government, which was established in 1924 by the late Edward Bok, has been engaged in several studies, among which are "The Press Poll of Views on the World Court" and "Russian Recognition." In these and other studies the foundation has endeavored to report faithfully the views expressed.*

The most recent study conducted by the American Foundation Studies in Government is concerned with medical care. The report has just been made available, sent free to those who contributed and purchasable at $3.50 per copy, on writing to 565 Fifth Avenue, New York City.

Comments, wherever made, are marked "Comment" and are enclosed in parentheses.—ED.

Fundamentally, this is a study of the opinions of physicians concerning many aspects of medical service. Approximately 5,000 letters were received from approximately 2,200 men. The purpose "was not to poll the medical profession upon anything whatever, but rather to assemble ideas—to etch in the whole picture." Thirty-six per cent of those who replied are in general practice in general medicine and pediatrics; 38 per cent are surgeons, general and special, and 26 per cent practice other specialties. (*Comment.* About 68 per cent of the physicians in active practice in the United States are in general practice: 16 per cent as specialists and 16 per cent special attention.)

AVAILABILITY OF MEDICAL CARE

The first question discussed is "Is Adequate medical care now generally available?" There was considerable difficulty in arriving at any agreement as to the meaning of "adequate" and "available." One general practitioner asked "Does it include proper food, clothes and housing for the sick, so that they may recover with greater speed and comfort?" Others included additional opinions or criticisms of "reformers" for defining "medical care" in terms of such tangible things as laboratory procedures and x-ray tests. "Availability" raised the question of too few or too many physicians and whether an oversupply might not develop abuses. Some suggested that if the whole population was cared for and if preventive medicine was practiced there would not be enough doctors.

Many physicians declared that their experience had demonstrated that no one in their community who sought medical service had ever been denied it. Members of the public health service, surgeons and some others believed that, especially in rural districts, certain sections of the population at least could not obtain adequate medical service; some found special difficulty in obtaining institutional care.

As to their reasons why all sections of the population did not receive adequate medical care, first place was given to economic need; but a member of the staff of Johns Hopkins University School of Medicine points out, "All of us are wofully negligent of our health, for various reasons, and those who want to can easily assemble terrific statistics to show that the American people are not receiving proper medical and dental care." Instances of people living too remote from medical facilities were given. "Some of our correspondents point out that 'organization' of medical care is not the primary solution. If the government is to be invoked, they would invoke it first of all to provide continuity of employment and a living wage."

The increased value accompanying increased costs of medical care with the development of medical science is stressed. The cost of hospi-

talization and laboratory procedures is admitted to be a major problem in all quarters.

There seemed to be general agreement that medical care is part of the whole complex economic problem and must be considered in connection with it. A number of replies are summed up in the statement that "the really urgent problem . . . is the lack of a living wage and the lack of employment on the part of a large part of the population." Others pointed out that medical care is only one of the conditions of health, and a number asked "Since this is true, why pick on medicine?"

DEFINING THE OBJECTIVE

A consideration of the popular conception of health causes many correspondents to charge "reformers" with a failure to realize that "the organization of medical care cannot rise above the cultural level of the population for whom it is provided." One surgeon "points out that a patient who objects to paying a dollar or two for vaccination would be willing to pay three or five dollars for lancing a boil. . . . Many patients are willing to pay through the nose for procedures that to them are honorific, as for x-rays, but not for advice." At the subsistence level, medical care does not compete essentially with other wants. There is a "curious popular tendency towards extravagance in illness," especially in hospital care. This leads also to the patronage of quacks and nostrums and makes necessary "education of the people to a higher and more comprehensive conception of health."

RESPONSIBILITY IN ATTACKING THE PROBLEM

Some think that the first challenge is to medical men and that "state and county groups are in an especially strategic position to be useful." While there are repeated "references to foundations, social scientists, theorists, busybodies, swivel-chair workers, etc., there is . . . clear cut recognition of the relevance of the public interest" and of the fact that cooperation of all groups concerned is essential.

WHERE DOES THE GOVERNMENT ENTER?

Here the controversy is sharp. It starts with a recognition of the need of government participation in the care of the indigent, the mentally diseased, and for tuberculosis and venereal diseases. Beyond this, differences appear, although there are many who feel that "whether further government participation is or is not desirable, it is coming." That such governmental participation should be by evolutionary steps is the opinion of many, some of whom claim that governmental functioning should expand the idea of prevention and then stop. "Very general is the view that until the association between the public health organization and private practitioners has been adequately defined, and until the procedure and the working together has been established, we are not even on the way to solving the problems before us." One field in which there is strong support for government participation is in the subsidizing of hospital and laboratory service. There is wide divergement as to the proper field of federal, state and local governments. Many believe that government participation will lower the quality of medical care while others believe that federal aid would increase the efficiency of hospitals and the medical profession by lifting financial worries.

PAYMENT ACCORDING TO CAPACITY

Differences of income raise the questions of proper classification and of clinic and hospital abuses. Some claim that these abuses are great and others that they are comparatively insignificant. While there is recognition that social service work is "a primary need," it is felt that "the caliber of the people that do the work has not given general satisfaction." To meet the situation, four proposals are made:

1. Improve the social service investigation, possibly under the direct control of the medical society.
2. A central bureau of registration.
3. A campaign of public education.
4. Filters of various types.

THE DOCTOR PATIENT RELATION

In regard to the "doctor patient relation" and "free choice of physician," it is stated that "the weight of opinion in this discussion is that these phrases do mean something very real but that they have also been used as a smoke screen for values less sound." The controversy centers around the position of "science" and "art" in medicine. Several criticize the ability of the patient to choose. (*Comment.* It seems significant that the majority of those who discuss this question are specialists or members of university faculties.)

EVOLUTION VERSUS REVOLUTION

The answers to the question of whether a "radical change" in the present organization of medical care is indicated show sharp antagonism and little definiteness. "The great majority advocate change, some of it thoroughgoing, by evolutionary processes." Several believe that "what is needed is not 'a plan' but 'planning'" and that this should be conducted experimentally.

Whatever distributing schemes are adopted, it is felt, will influence the quality of medical care, and that this is the basic point. "Any plan that allots numbers of patients or even indicates the tempo and speed of the doctor's work, cannot help . . . circumscribing the quality of medical care." Medical care is not a "constant" or a "commodity."

MEDICAL EDUCATION

The inquiries concerning medical education raised the further question as to "What has medical education to do with an inquiry into the organization of the medical industry?" Those who replied said, in effect, "We do not think the problem can be defined in terms of costs and 'availability'; we do not think you can 'distribute' what you haven't got. Medical care is not a commodity and cannot be subject to the laws of commodity distribution. Adequate medical care is a changing, not a static, thing. It cannot be defined in quantitative terms. It cannot be defined in permanent terms. . . . Our general feeling is that so long as so much remains to be done in the way of training men that can give 'adequate' care and in training enough of them, and in making it impossible for the incompetent to offer what they cannot give, we cannot greatly interest ourselves in discussions of how medical care is to be distributed or what the cost to the ultimate consumer should be."

While many mention the advances in medical education, a few feel that "the modern tradition has lost more than it has gained." A president of a state board of medical examiners in the West, in discussing some of the candidates for registration with inferior equipment, gives his belief that "standards are lower than a decade ago." Two particular criticisms from members of the faculties of grade A medical schools are that there is "too much regimentation" and "too much rubber stamping."

One problem that troubles many is whether "medical schools that must financially 'earn their way' can meet the scientific and social standards at present required of them." This leads up to the question of whether tax funds for the great medical schools are not the impending development in the future of American medicine. Others urge a federal subsidy, even though this should "predicate a degree of government supervision."

LIMITATION OF MEDICAL STUDENTS

The question of limitation of medical students arouses wide diversity of opinion. Some favor limitation in various ways and others oppose all limitations. Others object to efforts to reduce the question to arithmetical terms; they consider that it is "more important to have a man of first quality one hundred miles away than to have two men of indifferent quality fifty miles away —or five miles or one mile away." Nearly all agree that better selection of students is needed, but there is the widest diversity of opinion as to how this selection is to be arrived at. "Some—but not many—writers express complete satisfaction with the quality of medical students now coming through," but far more complain of the background, preparation, motives and general attitude of applicants for admission.

It is agreed that academic competence and mental and other tests, personal interviews, and so on, all have weaknesses but some value. The suggested standards of "scholastic aptitude" and "character and personality" are extremely diverse. One suggestion is that admission boards and committees could learn something valuable if they checked up systematically on their own work. The weeding out process during the course should be accompanied by "stern measures at the end of the freshman year" and "even more positive measures by the end of the sophomore year."

There seems to be considerable agreement that the physician starts on his professional career too late but also that there is no way in which either medical or premedical training can be shortened. The question Where should the emphasis fall in premedical training? is hotly contested. Some favor greater emphasis on the humanities, others on the scientific content; others think there should be no stated content, and others that the content should vary with the individual.

THE MEDICAL CURRICULUM

In discussing the medical curriculum "the angle of particular interest is the bearing of medical education upon the function of the doctor and, therefore, upon the organization of medical service and the quality of medical care." Some think that the schools might contemplate several types of graduates, but this meets with strong opposition from a majority.

There are too many relative values involved to give an intelligent answer to the question of whether medical schools now tend to overstress the laboratory. A sample comment reads: "The faculties that do not teach practical medicine are perhaps in some degree responsible for the wave of machine shops which young physicians are setting up all over the country." Many hold that there has been an overstress on "scientific medicine," but others think that there is now a reaction from this attitude.

Another subject discussed at length and with widely conflicting opinions is the place of psychiatry. The nearest approach to agreement on this phase is that medical students should be trained to recognize as general practitioners the more usual signs of actual mental disorder and to take into consideration the entire personality of the patient. There is "no debate on the question that a better understanding of psychological influences in disease is a critical need." Some, however, deny that psychiatric training is essential to develop these qualities. A professor of internal medicine says "My personal belief is that formal instruction in psychiatry is not of great help in training the general practitioner."

Some correspondents observe that pediatrics has measurably succeeded in winning emphasis in medical education and "we have been impressed with the gradual change now accelerated in the attitude of the medical schools toward the teaching of tuberculosis." Greater attention to preventive medicine and public health work is urged, although it is admitted that they are receiving increased emphasis in medical school curriculums.

Suggestions as to additions to the curriculums "designed to orient the doctor in his social relation" vary widely. One group thinks that the best way to orient students is a thoroughgoing presentation of the history of medicine through the ages. Others suggest courses in social and economic problems, and several urge instruction in the legal aspects of medicine.

There is considerable distrust as to the possibility of including courses in business methods, but it is felt that the medical school might supply students "with organized information on conditions of medical practice which would lead to a better distribution of physicians."

The old dispute on the "full-time" and "part-time" teacher has representatives both pro and con, and a former president of the Association of Medical Colleges suggests that "the answer lies in employing both full-time and part-time men on the faculty."

There are representatives of both sides of the discussion as to "unfair competition from the 'corporate practice' of medicine by medical schools. . . . The state university schools, some writers point out, are the competent agents for 'organizing' medical care in direct relation to the particular needs of the given state."

Criticism is rather sharp of the education of interns in hospitals, and it is suggested that "many a man who cultivates a smattering of egocentricity and conceit as a hospital intern might much more profitably, for a time, have ridden behind the saddle bags, through a rural district, under the hand of a practitioner or state medical officer who is successfully dealing with problems of public health and personal relations rather than operating technic and the intricate technical laboratory procedure."

Postgraduate education of active practitioners brings some helpful suggestions. Some doubt that so-called refresher courses are of any great value and would introduce some kind of compulsory regular reexamination. There is some difference of opinion as to whether this graduate education should be by medical schools, by hospitals, by medical societies or by cooperative arrangement between any of these. A number of opinions seemed to incline to the view that the medical societies are the desirable agencies for organizing postgraduate instruction. (*Comment.* There is a rather surprising ignorance on the part of some members of medical school faculties as to the extent to which such graduate education for practitioners is now being carried on).

SPECIALIZATION

Much space, with sharp contrast of opinion, characterizes the discussion of specialization. The replies are summarized as indicating that "there are too many poor specialists and there are not enough good ones." (*Comment.* Here, as throughout the study, there seems to be an overemphasis on surgery and frequent criticism of the fact that the present licensure is for "medicine and surgery.") Some type of control of specialism is generally advocated, and many look to certifying boards as the best way out, although there is not lacking sharp criticism of their present development. Several urge that the medical directory base its classification of specialists on some more definite standards of classification. "Among the partial steps occasionally suggested is the building up of a tradition by which family physicians will do all of the referring to specialists." It is felt that this can be made effective only through education of the public. More systematic consultation prior to operative procedure is a frequent suggestion. Numerous legislative proposals for the regulation of specialization are considered, but there is no consensus of agreement. Several members of the American College of Surgeons are emphatic in their criticisms of its standards. Specialists' fees come in for some rather harsh denunciation, though others believe they are justified.

GROUP PRACTICE

"If we were required to put, in a single sentence, what these letters provide by way of answer to the general question 'Is group practice a desirable development?' we should have to say that the weight of opinion is 'Yes, if,' with quite as much stress upon the if as upon the yes."

Criticism centers on the alleged tendency of group medical service to exaggerate the importance of consultation and the use of expensive diagnostic procedures. It does not appear that there is much disagreement on the value of the consultative principle but there seems to be a difference of opinion on the question whether group medical practice offers the best method of applying this principle. Its defenders claim that it keeps the members up to date, encourages consultation, substitutes cooperation for competition, gives better care in diagnosis of incipient or obscure diseases, relieves the doctor of the business side of the profession and promotes his efficiency. Critics allege that "giving all the patients 'the works' is exceedingly wasteful and not really scientific" and that the group "ignores the psychic values in illness and therapy,"

destroys free choice and the doctor patient relation, does not lessen the cost of medical care, permits elaborate procedures often to delay urgently needed treatment, turns medicine into a business and tends to kill "competitive effort" and to become a monopoly in the neighborhood.

PLACE OF THE HOSPITAL IN THE ORGANIZATION OF MEDICAL CARE

There is much argument as to the proper place of the hospital in medical care and of its relation to the government. Community hospitals are enthusiastically approved and strongly condemned. Hospitals are condemned for lack of plan, extravagance and excessive equipment.

"The conclusion—so far as the foregoing presentation goes—is that if, on a national basis, there were cooperative planning for greater differentiation of hospitals according to function; if, especially, provision were made for more hospitals, general or particular, for chronic diseases, for convalescence; if provision were made for the intensive study and treatment of single diseases in special hospitals covering comparatively large areas, the result would be a system of medical care scientifically and economically much sounder and less expensive than at present. And medical education, also, would be notably served."

The standardizing efforts of the American Medical Association and the American College of Surgeons receives praise and criticism, and the suggestion is frequent that some sort of governmental supervision, accompanied by licensing, is necessary, although it is recognized that this, if accompanied by tax support, might bring in political management. "Open" and "closed" staffs have their advocates and assailants, but there seems to be general unanimity that medical affairs should be in the control of the medical staff. There is definite objection to the "corporate practice of medicine" by hospitals, and the unfair competition by medical schools.

HEALTH INSURANCE

The depression, social security legislation and the development of hospital insurance "have combined to revive and sharpen the discussion of health insurance in general." The discussion is divided into five sections: the applicability of the theory of insurance to health, compulsory insurance, voluntary insurance, hospital insurance and contract practice.

Some of the physicians who approve of health insurance frankly state that the reason why they approve is that they feel that something must be done to bring medical care within the reach of the low-income groups and that insurance is the expedient they have heard mentioned most frequently. Some feel that health insurance is needed but dread to see it come. The strongest argument against insurance is the effect it will have on the quality of medical care; another objection is that health insurance cannot apply to indigent persons. "A number of doctors stress the need for further study. . . ."

The discussion of workmen's compensation falls within this section, and it is clearly evident that this sample of health insurance, while recognized as having many desirable features, is also believed to carry with it many evils. Quite a number of writers urge group insurance under the control of county medical societies. One bacteriologist advocates the Cuban system, which, in spite of the widespread evidence to the contrary, he thinks works well.

HOSPITAL INSURANCE

The replies dealing with hospital insurance are divided into five groups: (1) detailed statements from six localities where plans are in operation, (2) statements approving the plan, (3) statements opposing it, (4) some points for future consideration, and (5) suggestions for more extensive plans.

The accounts of the various plans are for the most part merely illustrative of the general workings of the plans and are not fact finding or searching analyses of the actual operations.

The majority of the statements approving hospital insurance include recommendations either for an extension of benefits and inclusion of additional members or for an alteration in the control of the plans. The keynote of these replies is enthusiasm and indicates a conviction that the plan is a forward step.

The statements in opposition to hospital insurance refer to the tendency of the plans to include medical services, to serve as a financial device for hospitals, to include persons not in need of assistance, to encourage the "hospital habit" and to fail to provide for persons in rural areas.

The points suggested for future consideration are the need for physical examinations of applicants; the propriety of including x-ray, laboratory and other special medical services; the possibility that present rates are too high and that the subscriber will say "Either cut the rate in half or else throw in the doctor"; the likelihood that trouble will come from commercial plans if hospital insurance proves to be a lucrative business; the need to adjust the plan for rural areas; the question as to whether or not hospital costs are too high, and the proper rate to charge for dependents.

The suggestions for more extensive plans indicate that anything short of complete protection will be unsatisfactory. The more specific suggestions emphasize the need for diagnostic and therapeutic facilities and preventive measures as part of the hospital insurance plan. The broadening of the plan to include medical and surgical fees is frequently urged.

Replies on this subject are interesting for their different points of view but scarcely permit the drawing of the conclusion that:

There is a growing tendency in both the profession and the public to question why it is commendable to insure against the cost of hospital care but unethical to insure against the cost of medical care.

Other conclusions drawn from the replies are:

That there is a widespread support for hospital insurance but that many of the men who approve of it as one step in making medical care more easily accessible point out serious questions arising out of it which will inevitably require adjustment soon;

That while acknowledging that hospital insurance meets the need of some persons for hospital care and to some extent meets the needs of hospitals for funds, a group of correspondents suggests that it may delay more fundamental dealing with both problems.

CONTRACT PRACTICE

Under contract practice are placed industrial group medicine, mutual health organizations, trade union plans, lodge practice, so-called cooperatives, university health service, and plans by individual groups of physicians. It naturally follows that, where so many different plans are included under one classification, there are very contradictory opinions as to the results and desirability.

It is recognized that there is much difference in the quality of service in all these types and that they are all still in the experimental state. The discussion does not really present any point of view not already considered in the years that such plans have been developing and operating.

PUBLIC HEALTH ORGANIZATION

The comments on public health organization were grouped under the headings of Organization of Public Health Work, Relationship of Local, State and Federal Public Health Work, Relationship Beween Public Health Organization and the private Practice of Medicine, and Public Health Standards of Appointments.

Opinions were sought on two broad questions; first, what is the line of division between health work done by a government agency, paid for with tax funds and done by governmental appointees, and private medical care paid for by the recipient and done by private practitioners; and, second, assuming that a certain service is held to be properly a subject for public health work, who is to do the work and control it?

Some correspondents urged that state laws be enacted so as to give the state department of health responsibility for all health functions, and that similarly in local units of government responsibility for any health work to be transferred from the welfare and education authorities to the local health authorities. One reply states, in part, "A well organized state health service (such as the county setup proposed by Wisconsin with full time executives and assistants on adequate salary and during 'good behavior,' supported by the general tax funds) is a necessity."

(*Comment.* There appears to be a confusion of the terms "public health" and "medical care for the poor." These terms seem to be used interchangeably. This confusion is shown by statements in the explanatory editorial remarks and by the inclusion under public health of remarks such as "the unfortunate sick and injured citizens are neglected because these appointments have been made on a political basis and not always from the point of qualifications. The combined salary paid to these men will secure the services of one qualified man who would give his whole time.") Other replies refer to the "widespread patronage system in politics, the importance in rural areas of full time, well trained health officers to replace the part time, untrained, politically controlled health expressed concisely by one physician who says "the present method of entrusting the conduct of state departments of health to political appointees is a joke which only germs appreciate."

Recent activities of federal and state public health cooperation under the Social Security Act indicate that, during the five months of February to June 1936, 175 new local health organizations were granted, nineteen states set up central facilities for the promotion and supervision of local health administrations, eleven added new units for the promotion of industrial hygiene, three state departments strengthened their public health engineering forces, twenty-four states strengthened their groups for control of preventable diseases, and in twenty-seven states laboratory facilities were improved, eleven states provided special measures for syphilis control and thirteen for the control of tuberculosis.

VETERANS' ADMINISTRATION

(*Comment.* It is difficult to understand the reason for including under the general head of Public Health Organization description of and comments on the Veterans' Administration, which says of its own work that "the medical phase of veterans' relief is the most expensive organized project of its kind in the world.") From the account given of the number of hospital beds and the comments which are confined to the discussion of the medical relief provided veterans, this section appears to be definitely devoted to curative medicine.

On June 30, 1936, the Veterans' Administration owned and was operating hospital facilities at eighty different places in forty-three states and the District of Columbia. These hospitals had a total of 45,873 beds, and 18,756 more beds were available in facilities for domiciliary care under its jurisdiction. The total number of beds controlled by the administration was 64,629.

During the year 1935-1936 the non-service connected disabilities were about 90 per cent of all admissions. One comment from California reads "There is too much participation by the state in the provision of medical service to the people now, for example, medical care and hospitalization of veterans for non-service connected disabilities, free use of county hospitals regardless of financial status." An internist in the Middle West says "Federal participation in the field of medicine has been good and bad . . . as an example of the bad, I mention the Veterans' Bureau; as an example of the good, the U. S. Public Health Service."

Comments on the method of public health control are overwhelmingly in favor of keeping that control in the hands of the smaller units of government. Those who comment on the relation of state and federal agencies prefer that the state should have control of public health work within its limits, but they express the belief in the desirability of having federal control for various forms of health work within the states. Still another group of correspondents feel that the U. S. Public Health Service should be made the center of the entire medical work of the country.

The comments in the Relation Between Public Health Work and the Private Practice of Medicine emphasize the necessity for the closest cooperation between health authorities and practicing physicians. One correspondent states, in short, "The best public health administrators in the past have been those growing up in private practice and maintaining their relationship with the local medical societies." Many reports indicate a cordial and satisfactory relationship between public health and private practice, but there are several reports which contain statements which indicate opposition and antagonism in some places; for example, "There are cases where public health officials have had to resign from the local societies because of their opposition to the health measures instituted." Again, 'The medical profession has in some instances actually resisted the efforts of the health department to develop a truly efficient organization, especially along lines where personal service of any kind is rendered." Another correspondent states, "Judging for our own community there has been an undesirable estrangement between the organized profession and medical science as reported by the leading physicians and public health administration. . . ."

Commenting on the old question of encroachment, one report reads: "Public health service whether federal, state or local should be extended as occasion demands. Those who feel that the government should not encroach on the private practice of medicine should not attempt to diagnose or treat diseases which occur in private families, especially in those able to pay for their services." Another report reads: "It does not seem to me that the function of the health department of any community whether it be local, state, or federal, should have anything to do with the treatment of individual patients. Their function should be confined to the prevention of diseases and not to the cure of diseases."

Commenting on the growth of public health work, one correspondent refers to the indifference of the medical profession as follows: "We, as medical men, have not met the demand of the public for preventive medicine, but with the increasing knowledge of science and medical affairs in general . . . the people realize that many diseases can be prevented and they wish their doctors to take care of it, and we doctors have not been interested." Another correspondent states: "There must be a more direct relationship between medical practice as represented by the leading physicians of the country and public health administration. . . ." Two other replies suggest that the medical profession fails to use preventive measures. "Preventive medical measures are usually of a public health character, and so long as they are to be applied as a part of the practice of individual patients, they will not be well done," and "I do feel that public health organizations in some cases are overstepping their bounds, but admit that the private practitioner is chiefly responsible for this in his negligence of public health matters."

Many correspondents feel that the medical profession, as representing the organized medical spine of the country, should have control of all matters pertaining to public health work as well as to private practice. Some mention only control of appointments, others control of all standards and some mention both. These attitudes are however not universal. One physician states "I am very doubtful about the preparedness of the medical profession to control standards of public health appointments." Others are in favor of public health under civil service. "Medical organizations should not control standards nor public health appointments. Competitive examination or superior past record should be the measure by which a candidate should be judged as to his fitness for a given position."

EXPERIMENTATION—STATE, COUNTY AND COMMUNITY PLANS

The replies assembled under the title of "experimentation" deal with state, county and community plans in operation or under consideration, plans for the care of the indigent, and plans for the care of persons on relief.

The first two sections of this chapter discuss medical service plans for persons whose incomes are small or whose wages are low but who are

not indigent. The feeling is expressed that the medical profession cannot alone supply the medical needs of these people any more than the grocer, the butcher or the landlord can meet their material needs. In the explanatory editorial comment it is stated ". . . there is need of aid for the indigent from other sources such as local tax funds. As a rule, therefore, these plans are addressed to those who may be supposed to be able to pay at least a reduced fee for medical care." (*Comment.* It is believed that the ordinarily accepted definition of indigent means a person who is unable to pay for any of his material or medical costs. "Indigent" is a more refined term for pauper.)

The correspondents agree largely on the desirability of some plan for medical care, but they express different points of view as to what the plan should provide and the manner in which it should operate. One physician recommends "establishment by the county medical society of a bureau to furnish the medical services of all licensed physicians in the county, subscribing to the rules of the bureau to this group on the deferred payment plan at reduced rates. This bureau should be under the sole management of the county medical society. . . ." Another physician points out that some of these plans are simply insurance and others are different types of contract practice. Several physicians agree that the type and scope of the plan must necessarily vary according to the requirements of different communities. One letter reads: "I am opposed to individual doctors having contracts, but think the time is ripe for contracts by doctors of a community for industrial plants to cover the individual with a small income to whom hospitalization for members of his family would be out of the question. I am speaking of a medical service bureau. . . ."

Some correspondents believe that the expansion of hospital insurance plans to include medical service is a possible development for the future. One says "The eventual expansion of such hospital insurance plans to include medical service with minimal remuneration to the physician is a possible development for the future. . . ."

As examples of instalment prepayment plans, considerable space is given to replies from the District of Columbia. One physician says "Through the above plan there is every prospect that many of the most difficult economic and social problems of medical care in the city of Washington are being solved." Again, a pediatrician expresses the opinion that "I believe this plan is a complete answer to state medicine."

Not all correspondents agree that the Washington, D. C., plan is an answer to every economic ill affecting medicine. One physician who seems to be in doubt says "I can only state from limited personal observation that as regards private practice it has been of very little help. Patients able to pay anything at all seem just as willing to pay money directly as to pay the Medical-Dental Service Bureau."

Similar testimony is recorded as to the virtues and defects of the Wayne County Medical society plan, the Omaha-Douglas plan and the Des Moines, Iowa, plan. The expressions of physicians in California are more guarded as to the finality and perfection of such plans as exist in Sacramento County, San Bernardino County and Fresno County.

A number of the correspondents expressed the belief that prepayment plans, while no doubt reflecting a real desire to meet public needs, do not go far enough. Some believe that it is easier for people with small incomes to pay a small amount every month while they are well and getting their wages than to pay a larger amount for twelve months after they have been sick and have perhaps lost their jobs and incurred other expenses.

Examples of prepayment medical plans are drawn from the states of Washington, Oregon and Georgia. These prepayment plans have been criticized as being equivalent to contract practice, but, from the comments of the correspondents, physicians who are engaged in practice under prepayment plans defend them as being a necessary way of circumventing the undesirable results of the contract practice that exists around them.

Letters from Georgia, Maine, Massachusetts, Michigan, Rhode Island, Texas, West Virginia and Wisconsin indicate that these state medical societies are studying plans for some type of a medical service organization for low income groups.

One letter describes the features of the county contract plan of caring for the indigent sick in Iowa.

Most of the states from which comments were received perfected an organization and plans for the care of persons on relief during the period of the depression. Comments on these plans were received only from the states of Iowa, Kansas, West Virginia and Wisconsin.

The final paragraph of the editorial summary on this chapter suggests the conclusion, based on the views of the correspondents, that "both the general public and some of the medical profession are beginning to feel that the issues can be met only by Planning rather than by A Plan."

STATE MEDICINE

There is a general confusion in the minds of many physicians as to the meaning of "state medicine." Some correspondents believe that adequate medical care can be given only through a system operated and financed by the government. In general, those who support the idea of state medicine believe that all medical, dental

and hospital care should be supported by taxation. Some correspondents express the opinion that the transition from private practice to state medicine can be made through the development and consolidation of public health work. One physician seems to be imbued with a great deal of optimism when he says "All physicians should be paid by the federal government, managed by honest, competent physicians who have no political ambitions, and above all kept out of the hands of political demagogues."

A number of physicians believe that a proper system of socialized medicine would turn the energies of physicians from private competitive effort to cooperation and scientific advance. Some express the belief that state medicine would cure fee splitting and other abuses in medical practice.

A large group of physicians are convinced that state medicine will completely wreck the medical profession financially, while the Medical League for Socialized Medicine offers the view that socialized medicine "is the only real practical and scientific solution for the doctor's dilemma." Still another attitude expressed is to the effect that state medicine will one day be necessary and advisable but that the day has not yet come. Another correspondent thinks health is more important to the human being than the services given by other professions or by industry. He does not see why medical men should be forced to give their services under government supervision when the men who rent insanitary tenements and the men who supply food and clothing are not put under similar control.

The objections to state medicine in the main cover a relatively small number of points. Those that occur most frequently are that it will break up the personal relation between the physician and his patient, that it is extremely wasteful, that it will be impossible to keep it out of political control, and that it will lead to malingering and will swamp physicians with an innumerable number of calls for petty ailments. One physician says "If medicine is to be socialized, why not all the professions?" Another states "I cannot see why there is any more need for the socialization of medical services than there is for the socialization of other necessary services such as legal services or, to carry the argument to the extreme, the supplying of food, shelter and clothing." In the words of another physician, "State medicine would be 90 per cent state and 10 per cent medicine." The replies in general cite four objections to state control: that (1) it would take away the physician's independence of incentive, (2) it menaces the personal relationship, (3) it prolongs the period of illness, and (4) the system is inefficient and extravagantly wasteful. Other physicians believe that medical progress would be halted and that the level of medical care would be generally lower.

In this chapter, several of the correspondents seem to consider the terms "state medicine" and "sickness insurance" as synonymous. The chapter closes with a description of the system of medical practice in Sweden.

LIMITED STATE MEDICINE AND PRIVATE PRACTICE

The chapter on limited state medicine and private practice contains many replies on subjects that are included in other chapters of the report. Some of the subject matter in this chapter not treated in previous sections are the recognition of government responsibility for the care of the indigent sick, meaning the legally indigent; a socialization of laboratory service, that is, extension of the facilities of tax supported laboratories or of hospital laboratories under government subsidies; the allocation of tax funds to voluntary hospitals; the assumption of greater responsibility for the training and qualifications of physicians, and the governmental support of research.

A number of physicians commented on the desirability of a federal department of health with a secretary of health in the President's cabinet. There is, however, unfavorable reference in the correspondence to the federal department of welfare proposed in the Harding administration, with health as one of the welfare attributes. One physician states "I believe firmly that our country should have a Federal Department of Public Health entirely independent and divorced from all other government departments. . . ." Several comments include the idea that the private practitioner has seriously failed to keep his conception of preventive medicine and his degree of dealing with it in line with the development of public health needs; for example, "The time is long past when we can separate the preventive services of a health department from curative medical service. Prevention and cure, in fact, are a united problem in reducing morbidity and mortality and should be integrated and administered by health departments, state and local, so far as such services are paid for by public funds."

Reference is made to the care of the insane as one of the oldest forms of state medicine. There are many varying opinions as to the extent the public health service is to practice medicine. There are those who would include the treatment of syphilis, and a greater participation by health departments in the management and control of pneumonia, tuberculosis, heart disease, arthritis and cancer.

A considerable number of correspondents suggested the influence that the government might exert in the distribution of medical facilities (1) directly by subsidy to the physician or (2) indirectly by establishing hospitals that

will provide competent medical graduates with facilities they need for furnishing good medical care. Some correspondents recognize that a guaranty implies a certain amount of available money in the community and that the trouble with some communities is precisely that they do not have this money. Therefore, any guaranty would have to be supplemented by aid from the state or federal government and in some cases the supplement would certainly overshadow the local contribution. Correspondents also called attention to the impracticability of establishing community hospitals unless or until adequate staffing is provided for.

Comments on the community responsibility for the care of the indigent contain extremes of opinion, some maintaining that the indigent sick are too well cared for while others maintain that the indigent in other places receive very poor medical attention. Those who incline to the latter view are greatly in the minority.

There are in these letters hundreds of expressions of the view that the state should cooperate with the medical profession in assuming responsibility for the care of the indigent. There is clear agreement on the primary nature of local responsibility. The discussion of standards of medical care for the indigent proceed from the premise that the quality of the medical care for the indigent is at all times to be the best quality of medical care available in the present status of the development of medical education and medical science.

The question concerning the socialization of scientific aids to diagnosis suggests that there is already among patients and physicians alike overemphasis on laboratory procedure and that making tests easily available will increase this overemphasis; that extending the facilities of state laboratories will be an opening wedge for state medicine; that the policy will not be fair to private laboratories and technicians, and that the work will not be well done and will therefore not improve the quality of medical care.

State aid for the general care of indigent patients or for the care of particular groups of patients is now available in twenty states to voluntary hospitals.

The views expressed by correspondents indicate some belief in governmental aid to medical education and governmental support of research.

Rural Medical Service

NOTE.—*This is the fifteenth of a series of articles on Rural Medical Service, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

For half a century, rural population has been declining quite rapidly in relation to urban residents. By 1920 more than half the population lived in cities. During most of this period the number of physicians in relation to population was steadily declining. There were but 636 persons per physician in the United States in 1898 as compared with 797 in 1929.[5] The number of graduates of medical schools reached the high point of 5,600 in 1905, fell to 2,529 in 1922, and then rose steadily to 5,183 in 1936. In spite of these changes there was never a time during this period when there were not more physicians per unit of population in the United States and in both urban and rural districts than in any other country on the globe.

So far as these general basic movements of population are concerned, the simple facts are: first, physicians moved with the general movement of population to the cities and, second, a larger proportion of the decreasing number of medical graduates naturally followed or anticipated this movement.

This explanation, by itself, is an oversimplification of an extremely complex development, which was greatly influenced by many other factors both in general social organization and within the medical profession. A majority of these factors tended to intensify this underlying movement. Good roads, automobiles, free postal delivery, mail order stores, interurban lines and later busses concentrated trade in the larger cities, and almost all other features of rural and small town life tended to follow this trend. The physician who left a village to locate in a nearby city often found his prestige and practice increased among his former neighbors, to whom he was usually no less and often was more accessible with improved transportation and communication than when he lived in the village.

Changes within the medical profession nearly all seemed to be increasing these tendencies. The rapid rise in standards of medical education decreased the number of medical schools and graduates just when population was deserting farms and villages for the large cities. This social movement was bound to include the diminishing stream of medical graduates and direct a disproportionate number to the cities. This development created the condition that is described over and over by commentators on the distribution of physicians; viz., a constantly aging and a decreasing number of the less well educated and equipped physicians in the rural districts.

5. Distribution of Physicians in the United States (Revised) 1936, Bureau of Medical Economics, American Medical Association, p. 7.

The dominating trends in medical education still further intensified this tendency. It has often been noted that throughout the history of medicine there has been a tendency to alternate periodic emphasis on the science and the art of medicine.[6] The years during which these population changes, the rise in medical standards and the decline in medical graduates were most evident were also years of extreme emphasis on the scientific side of medicine, and a consequent neglect of the art of practicing medicine.[7] It was a time when laboratories and new technics in many fields were making sensational advances. New scientific discoveries affecting diagnosis and treatment were being hailed with enthusiasm. These originated largely in the laboratories, hospitals, universities and research institutions located principally in the cities where the required facilities existed.

These scientific advances certainly could not be "diffused" throughout the rural districts before they were developed in the cities or until it was possible also to "diffuse" the technical equipment and training required for the utilization of the scientific discoveries. There is some question whether, even at the present time, more harm than good might not be done by forced and premature efforts to hasten the movement of some forms of "scientific" medicine into rural districts. In some instances, hospitals and medical groups have been created and certain forms of surgery and medical treatment attempted in such locations without either adequately trained personnel or sufficient equipment. It was during this period that medical groups or clinics grew most rapidly. This development also represented an effort to utilize, sometimes to excess, the newly discovered scientific technics. These groups had their greatest growth in medium sized cities (from 100,000 to 250,000 population). A study of their organization and equipment raises grave doubts as to whether even a majority of them were able to secure and assemble in a balanced group sufficient properly trained specialists and equipment to give a service really superior to that of the general practitioners whom they often displaced.[8] These groups also accelerated the movement of both patients and physicians to the city. The latter were attracted by the opportunity to utilize the latest scientific phases of medicine, and the former by the sometimes extravagant claims of such scientific phases as contrasted with the less highly publicized skill of the country physician in the art of medicine.[9]

A powerful impetus to all these movements was given by the World War:[10]

> By the time the United States entered the World War, many physicians still practicing in rural communities had been deserted by many of their regular patients and were having difficulty in making a living. To such physicians the entrance of the United States into the World War brought a God-sent opportunity to leave such districts without being accused of deserting them. On the contrary, their action was looked upon as a patriotic service. After the war closed, many of these physicians did not return to their former addresses but, after obtaining advanced training in some chosen medical specialty, settled in new and more promising localities—usually in a town or city.

(To be continued)

6. Introduction to Medical Economics, Bureau of Medical Economics, American Medical Association, pp. 26-28.
7. Commission on Medical Education: Final Report, New York Office of the Director of Study, 1932, pp. 22-23.
8. Group Practice, Bureau of Medical Economics, American Medical Association, 1933, pp. 22-28.
9. Lord Horder: The Clinician's Function in Medicine, New York State J. Med. **36**: 843 (June 1) 1936.
10. Colwell, N. P.: Why There is a Shortage of Country Doctors, Hygeia, July 1930, p. 640.

Works Progress Administration Activities

(Continued from page 111B)

HEALTH DEPARTMENT RECORDS

Georgia and Kentucky have state wide programs using Works Progress Administration workers for classifying communicable disease records, and New York City and a number of smaller communities have used clerical assistance provided by the Works Progress Administration to bring down to date the filing and tabulation of vital statistics, work that was in many places neglected during the years of difficult tax collection. It is reported that in New York City the modernizing of the vital statistics department has reduced the required time of search from one hour to a few minutes.

HEALTH SERVICES TO CHILDREN

A large part of the local projects of health promotion of the Works Progress Administration is directed toward school children and especially the children of relief or other underprivileged groups. General physical examinations of school children, with arrangements for corrections of defects through the family physician or clinic, have been carried out in a large number of urban and rural communities. Immunization surveys have been made, with resultant large increases in the number of parents consenting to have their children protected against diphtheria, scarlet fever, smallpox and typhoid. Nationwide statistics are not yet at hand but it is already possible to give some definite figures from which a general notion of the scope of the accomplishments in these lines may be obtained. In New York City in the four months period March 1 to July 1, 1936, Works Progress Administration canvassers

checked the immunization status of 38,147 children under the age of 6 years for diphtheria and obtained signed request pledges for immunization in the cases of 9,358 of the 9,927 children found not to have had immunization treatment. A total of 20,155 physical defects was revealed by examination of school children, corrections were made in 2,917 instances and treatment was given in 6,325 cases. In Kentucky, a project operating in forty-eight counties over a four to five months period immunized 85,852 children against diphtheria, 20,937 against smallpox, 72,067 against typhoid, 3,296 against scarlet fever and 514 against whooping cough. In Pennsylvania, in fourth class school districts where no such service is regularly provided, a school medical service conducted by the Works Progress Administration during a six months period, provided physical examination for 48,771 children and among these secured correction of 3,807 defects.

TRACHOMA

The Works Progress Administration is supplying nursing and clerical personnel and a bus service to aid the work of the trachoma clinics established by the state of Illinois, with the cooperation of the Illinois Society for the Prevention of Blindness, in five counties in the southern part of the state. It is felt that the bus service is particularly important in speeding up eradication of trachoma from the state, since it brings the clinic treatment within reach of patients in outlying districts who could not otherwise avail themselves of it.

(To be continued)

The Home of the American Medical Association

NOTE.—*This is the fifteenth of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

Among the facilities offered by the new headquarters office of the American Medical Association are the two shown in the accompanying illustrations; namely, an employees' library and dining room.

Employees' reading room.

EMPLOYEES' LIBRARY

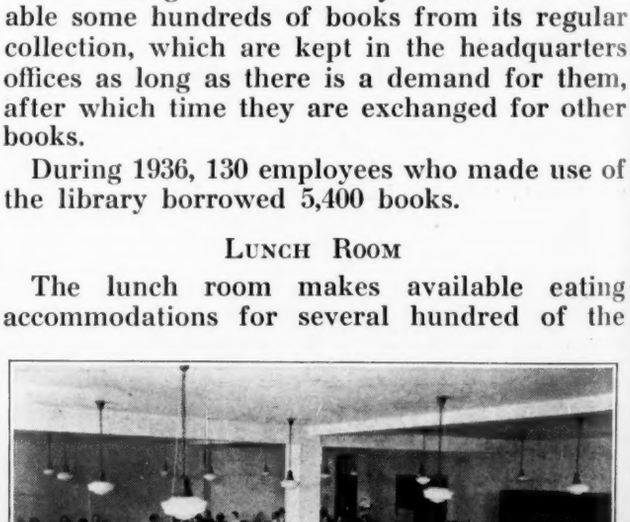
The employees' library is found on the fifth floor, adjacent to the facilities for noon luncheon. It is conducted, however, by the library department. This library and reading room is open only during the noon hour, at which time an attendant is available to arrange for lending books to employees who wish to borrow them. The employees of the Association wishing to be members of this library pay 50 cents a year for their membership. With this money new books are bought regularly.

The Chicago Public Library also makes available some hundreds of books from its regular collection, which are kept in the headquarters offices as long as there is a demand for them, after which time they are exchanged for other books.

During 1936, 130 employees who made use of the library borrowed 5,400 books.

LUNCH ROOM

The lunch room makes available eating accommodations for several hundred of the



Employees' lunch room.

employees and serves coffee, soup and sandwiches.

Employees may also bring their own lunches and use the lunch room facilities.

(To be continued)

Official Notes

COUNCIL ON INDUSTRIAL MEDICINE

Pursuant to a resolution adopted by the House of Delegates at the annual session of the Association at Kansas City the Board of Trustees called a conference March 12 to consider the manner in which the American Medical Association might concern itself with the problems raised by industrial medicine. In attendance at the meeting were Drs. Austin A. Hayden, Charles B. Wright and James R. Bloss, Trustees; Dr. A. J. Lanza, assistant medical director of the Metropolitan Life Insurance Company; Dr. L. D. Bristol of the American Telephone and Telegraph Company; Dr. Carey P. McCord of the Chrysler Corporation; Dr. A. D. Lazenby of the Maryland Casualty Company; Dr. Stanley J. Seeger of Milwaukee; Dr. Louis Schwartz of the Office of Dermatoses Investigations of the United States Public Health Service; Dr. William O'Neill Sherman, chief surgeon of the Carnegie Steel Company; Dr. Emery R. Hayhurst, consulting industrial hygienist; Dr. C. D. Selby, medical consultant of the General Motors Corporation; Dr. Harry R. Foerster of Milwaukee, formerly chairman of the Section on Dermatology and Syphilology; Dr. R. G. Leland, Director of the Bureau of Medical Economics; Dr. W. C. Woodward, Director of the Bureau of Legal Medicine and Legislation; Dr. W. W. Bauer, Director of the Bureau of Health and Public Instruction; Dr. Olin West, Secretary and General Manager, and, for part of the time, Dr. Morris Fishbein, Editor.

It was pointed out that the Committee on Industrial Dermatoses of the Section on Dermatology and Syphilology and the action of the House of Delegates on the control of occupational diseases had indicated to the Board of Trustees the necessity for studying industrial hygiene and occupational diseases, particularly silicosis, and also that legislation in the various states was in no way uniform so far as it concerned the medical aspects of these conditions. It was pointed out also that various federal agencies are concerning themselves with these problems. Each of those in attendance at the conference expressed interest in the relationship of the Association with this work and pointed out various phases of the problem which demanded investigation and study. It was felt that medicine has come so greatly into industry in recent years as to constitute a subject of scope far beyond that of twenty years ago. It was pointed out that there are many aspects of the questions concerned with insurance and that the occupational dermatoses are little understood as yet by the medical profession. Furthermore, the constant introduction into industry of new chemical substances is regularly creating new problems in this field. Emphasis was laid on the possibilities of prevention of disease through improvement of industrial hygiene. It was also felt that the economic phases of industrial medicine might have special consideration by the Bureau of Medical Economics.

The conference suggested, therefore, that a recommendation be made to the House of Delegates of the American Medical Association for the establishment of a council to be known as the Council on Industrial Health and that the Council be of sufficient scope in its membership to represent adequately general medicine, railroad medical service, surgery, dermatology, ophthalmology, otolaryngology, industrial medicine, insurance, industrial hygiene, radiology, physics, psychiatry, industrial toxicology, public health and medical education.

The conference in adjourning expressed its appreciation to the Board of Trustees for making the Council possible; also it expressed confidence in the Association for its leadership in this development.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:
- April 12 and 13—Tenth District Nurses' Association, Eau Claire, Wis.
- April 15—Parent Teacher Association, Oshkosh, Wis.
- April 22—Rotary Club, Evanston, Ill.

DR. FRANK J. CLANCY:
- April 20—Virginia Polytechnic Institute, Blacksburg, Va.
- April 23—University of Maryland Medical Forum, Baltimore.
- April 29—Y. W. C. A., Grand Rapids, Mich.

DR. MORRIS FISHBEIN:
- April 11—Medical Society of South Carolina, public meeting, Charleston.
- April 12—Special meeting of Medical Society of South Carolina, Charleston.
- April 13 and 14—South Carolina Medical Association, Columbia.
- April 14—Laying corner stone, State Tuberculosis Sanatorium, Columbia, S. C.
- April 14—Public Health Meeting, South Carolina Medical Association, Columbia.
- April 15—Faculty Association of New York Post-Graduate Medical School, New York City.
- April 22—Staff meeting, University of Minnesota Hospitals, Minneapolis.
- April 22—Graduating class medical technologists, University of Minnesota, Minneapolis.
- April 25—Annual Banquet Phi Delta Epsilon, Chicago.
- April 26, 27 and 28—Louisiana State Medical Society, Monroe.
- April 26—House of Delegates, Louisiana State Medical Society, Monroe.
- April 27—Lions Club, Monroe, La.
- April 27—Annual Oration Public Meeting, Installation of President, Dr. Charles M. Horton, Monroe, La.
- April 29—Congregation Beth El, Tyler, Texas.

DR. CHARLES GORDON HEYD:
- April 12—Arkansas Medical Society, Little Rock, Ark.
- April 13—Tennessee Medical Society, Knoxville, Tenn.
- April 17—Clinical Day, University of Buffalo, Buffalo, N. Y.
- April 21—Medical Association of the State of Alabama, Birmingham, Ala.
- April 27—New Jersey Medical Society, Atlantic City, N. J.
- April 28—Polyclinic Medical School and Hospital, New York City.
- April 29—Cornell Medical School Alumni Society, New York City.

DR. R. G. LELAND:
- April 15—Faculty and Students of Iowa State University, Iowa City.
- April 26—Columbus Academy of Medicine, Columbus, Ohio.

DR. PAUL A. TESCHNER:
- April 14—Vocational Conference, De Kalb, Ill.
- April 15—Joint Meeting, Kentucky Educational Association and Kentucky Health and Physical Education Association, Louisville, Ky.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title Your Health. The topics and speakers for the next three programs are:

April 13. Indigestion, Paul A. Teschner, M.D.
April 20. A Fight Half Won (Tuberculosis), W. W. Bauer, M.D.
April 27. Keeping Your Baby Well, W. W. Bauer, M.D.

The time of the broadcast is Tuesday afternoon at 3 o'clock central standard time (4 o'clock eastern time, 2 o'clock mountain time, 1 o'clock Pacific time).

THE ATLANTIC CITY SESSION

Symposium on Health Problems in Education

The Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association will sponsor a scientific program on Health Problems in Education at the annual session of the American Medical Association at Atlantic City. The symposium is scheduled for Tuesday, June 8, at 2 p. m. The program and the place of meeting will be announced later. The program is being arranged by a subcommittee, which consists of Dr. W. W. Bauer, Chicago, chairman; Dr. A. G. Ireland, Trenton, N. J., Dr. Edward Jackson, Denver, and W. A. Sutton, Atlanta. The Joint Committee organized by the American Medical Association and the National Education Association in 1911 is under the chairmanship of Dr. Thomas D. Wood.

MEDICAL EXHIBITS

April 12-14—Meeting of Arkansas State Medical Society, Little Rock. Exhibits on syphilis and on health promotion.

April 13-15—Meeting of Tennessee State Medical Association, Knoxville. Exhibits on objectionable obesity cures, mechanical nostrums, medical economics, syphilis, and health information for the public by the physician.

April 16—Western Reserve University School of Medicine, Cleveland. Exhibit on syphilis.

April 15-17—Northern Normal and Industrial School, Aberdeen, South Dakota. Exhibit on "patent medicine" testimonials.

April 26—Bronx County Better Health Week, New York. Exhibits on nutrition and the prevention of accidents.

April 28-29—Ohio State Medical Association, Dayton. Exhibits on syphilis and on the activities of the American Medical Association, including the Councils on Physical Therapy, Foods, and Pharmacy and Chemistry.

Medical Legislation

Medical Bills in Congress

Change in Status.—H. R. 2711 has been reported to the House with recommendation that it pass, proposing to create a Bureau of Water Pollution Control in the United States Public Health Service.

Bills Introduced.—S. 2040, introduced by Senator Green, and H. R. 6046, introduced by Representative Forand, both of Rhode Island, propose to authorize an appropriation of $1,200,000 to erect in the state of Rhode Island a 300 bed veterans' hospital for the diagnosis, care and treatment of general medical and surgical disabilities. S. 2067, introduced by Senator Bone, Washington, for himself and ninety-three other senators, and H. R. 6100, introduced by Representative Magnuson, Washington, propose to authorize an annual appropriation of $1,000,000 for use by the United States Public Health Service for the prevention and control of cancer. The Surgeon General of the Public Health Service would be authorized (1) to make grants to schools, clinics, hospitals, laboratories and other institutions, and to scientific investigators whose work has shown promise of making valuable contributions to human knowledge with respect to the cause, diagnosis, control, treatment or prevention of cancer; (2) to purchase radium and lend it to institutions for use in the treatment of cancer, and (3) to establish in any hospital under the supervision of the Public Health Service, or in any other hospital, a department for research and the clinical study of cancer. H. R. 5970, introduced by Representative Sauthoff, Wisconsin, proposes to authorize an annual appropriation of $5,000,000 to enable the states to make more adequate provisions for the operation of open air health camps for children of indigent families. The sums to be made available by the bill, it is proposed, will be used for making payments to states which have submitted and had approved by the surgeon general of the United States Public Health Service plans for the operation of one or more such camps. H. R. 6043, introduced by Representative McCormack, Massachusetts, proposes to authorize an appropriation of $2,000,000 to erect in or near the city of Boston a 300 bed veterans' hospital, apparently for the treatment of general medical and surgical disabilities. H. R. 6068, introduced by Representative Fulmer, South Carolina, proposes to amend the act recognizing the high public service rendered by Major Walter Reed and those associated with him in the discovery of the cause and means of transmission of yellow fever by extending its benefits to the widows of the beneficiaries. H. R. 6076, introduced by Representative Phillips, Connecticut, proposes to prevent the pollution of the navigable waters of the United States. It proposes that the National Resources Committee, established by executive order in 1935, be made a permanent establishment and that the federal activities connected with the prevention of the pollution of navigable waters, contemplated by the bill, be centered in this committee. H. R. 6077, introduced by Representative Mahon, Texas, proposes to authorize an appropriation of $1,050,000 to erect in west Texas a 300 bed veterans' hospital, apparently for the treatment of general medical and surgical disabilities.

District of Columbia

Bill Introduced.—H. R. 6082, introduced by Representative Lewis, Maryland, proposes to provide for the issuance of a license to practice the healing art in the District of Columbia to Dr. Glenn I. Jones.

Changes in Status.—H. R. 5896 has passed the House, providing for the prevention of blindness in infants born in the District of Columbia. H. R. 5996 has passed the House, making appropriations for the government of the District of Columbia for the fiscal year ending June 30, 1938. The bill proposed to transfer certain hospitals for which appropriations were made in the bill from the Public Welfare Department to the Health Department. This proposed authorization of transfer, however, was stricken from the bill on a point of order made by Representative Norton, New Jersey.

Illinois

Bills Introduced.—H. 531 proposes to appropriate $1,000,000 for the establishment of a state hospital for the care and treatment of poor persons afflicted with

tuberculosis. The hospital, when established, is to be under the management and control of the department of public welfare. H. 575 proposes to prohibit the manufacture, advertising, sale or transportation of adulterated, mislabeled or misbranded cosmetics.

Maryland

Bill Passed.—S. 276 has passed the senate, proposing to supplement the workmen's compensation act so as to make compensable some twenty-nine occupational diseases.

Michigan

Bill Introduced.—H. 395 proposes to abolish the office of coroner and to provide for the establishment of a medical examiner system in the state, to consist of a state medical examiner, county medical examiners and such other assistants as may be necessary. The state medical examiner is to be appointed by the governor for a term of four years and must be a licensed physician, possessing special training in pathology and the investigation of violent deaths. The board of supervisors of each county, with the approval of the state medical examiner, is to appoint a licensed physician to act as medical examiner for the county. The county medical examiner is to have jurisdiction in cases in which persons have died "suddenly, accidentally, violently or as the result of any suspicious circumstances or without medical attendance up to a time thirty-six hours prior to the hour of death, or in any case of death due to what is commonly known as an abortion, whether self induced or otherwise." In such cases the county medical examiner is directed to perform an autopsy in the presence of two or more persons and "shall then and there carefully reduce or cause to be reduced to writing, every fact and circumstance tending to show the condition of the body and the cause and manner of death."

Missouri

Bill Introduced.—S. 192 proposes to repeal the laws regulating the possession and distribution of narcotic drugs and to enact what appears to be the uniform state narcotic drug act.

North Carolina

Bill Enacted.—S. 454 has been ratified, amending the chiropractic practice act so as (1) to authorize the board of chiropractic examiners to issue licenses by reciprocity to applicants licensed by boards in other states which have educational requirements equal to those of North Carolina, on proof that such applicants have practiced chiropractic for at least one year, and (2) to raise to $10 from $2 the annual renewal fee required of chiropractors.

Pennsylvania

Bills Introduced.—S. 667 proposes to prohibit the issuance of a license to marry unless a physician's certificate is presented that both parties to the proposed marriage are not infected with gonorrhea or syphilis in a communicable stage. H. 1671, to amend the act relating to business corporations, proposes that a corporate name shall not "contain any word or words which indicate or imply the practice of a profession for which the said corporation is not licensed by the Commonwealth so to practice." H. 1754, to amend the laws relating to nonprofit corporations, proposes to permit the incorporation of corporations "for the purpose of establishing, maintaining, and operating a nonprofit hospital service plan whereby hospital care and service may be provided to subscribers of such plan by any hospital with which such corporations have a contract for such care and service." The articles of incorporation of such corporations must "contain a provision that a majority of the directors of such corporation must at all times be directors, trustees, or administrators of any hospital with which such corporation has a contract for such care and service." H. 1917 proposes to repeal the medical practice act and the osteopathic practice act and to authorize the state board of the healing arts, created in accordance with the administrative code of 1929, (1) to establish standards of preliminary and professional education and training for licensure to practice the healing art or any branch thereof, (2) to establish, name and define the various branches of the healing art which the board will recognize and in which licensure to practice will be granted by the board, (3) to examine and license applicants for licenses to practice the healing art and (4) to revoke or suspend licenses to practice for stated causes.

Rhode Island

Bills Introduced.—S. 126 proposes to prohibit the retail sale and distribution of barbital or any other hypnotic or somnifacient drug except on the written prescription of a licensed physician, dentist or veterinarian. The bill proposes to define the term "other hypnotic or somnifacient drug" to mean and include trional, sulfonal, tetronal, carbromal, paraldehyde, chloral or chloral hydrate or chlorbutanol. H. 765 proposes to require all applicants for licenses to practice any form of the healing art, as a condition precedent to their right to examination and licensure by their respective professional boards, to pass examinations in anatomy, physiology, pathology, symptomatology and diagnosis, chemistry, bacteriology and public health, to be given by a board of examiners in the basic sciences. No member of the board of basic science examiners can be a member of any of the various professional examining boards. H. 824, to amend the laws relating to the practice of osteopathy, proposes that "a certificate to practice osteopathy shall confer upon the holder thereof the right to practice osteopathy in all its branches as taught and practiced in recognized colleges of osteopathy." A licensed osteopath, the bill also proposes, shall be "subject to the same duties and liabilities and entitled to the same rights and privileges which may be imposed by law or governmental regulation upon physicians of any other school of medicine, except the practice of major surgery." The bill further proposes that any licensed osteopath "who has completed one year of postgraduate internship in a hospital approved by the state board of examiners in osteopathy, and passed a satisfactory examination in surgery, shall be licensed to practice osteopathy and surgery."

South Carolina

Bills Introduced.—S. 524 proposes to enact a separate naturopathic practice act and to create a board of naturopathic examiners to examine and license persons to practice naturopathy. The bill proposes to define naturopathy as "the use and practice of psychological, mechanical and material health sciences to aid in purifying, cleansing and normalizing human tissues for preservation or restoration of health according to the fundamental principles of anatomy, physiology and applied psychology, as may be required. Naturopathic practice employs among other agencies, heat, light, water, electricity, psychology, diet, massage and other manipulative methods. These agencies are known as psycho-therapy, suggesto-therapy, hydro-therapy, electro-therapy, mechano-therapy, biochemistry, external appliances, mechanical and electrical appliances, hygiene, first aid, sanitation, helio-therapy and dietetics. Provided, however, that nothing in this chapter shall be held or construed to authorize any naturopathic physician licensed hereunder to practice materia medica or surgery." H. 752 proposes that before a marriage license can be issued the prospective groom furnish a certificate issued by a licensed physician showing that a thorough physical

and mental examination has been made within ten days before such application and that the prospective groom is suffering from no physical or mental diseases. H.756 proposes that persons subject to the payment of an income tax shall, in addition to other exemptions now provided for by law, be allowed an exemption not exceeding $200 a year for payment made for hospitalization, or for nursing or medical services.

Wisconsin

Bill Passed.—S. 265 has passed the senate proposing so to amend the dental practice act as to provide that possession of the degree of doctor of dental surgery shall entitle a holder thereof, if licensed to practice dentistry, to use the title "doctor" or to append to his name the words or letters "Doctor," "Dr.," "Doctor of Dental Surgery," or "D.D.S."

Woman's Auxiliary

Annual Meeting at Atlantic City

The fifteenth annual convention of the Woman's Auxiliary to the American Medical Association will be held at Atlantic City, June 7-11. The headquarters this year, as in 1935, will be at the Hotel Traymore The convention chairman is Mrs. Carl Surran of Margate City, N. J. All business sessions, excepting those of the preconvention board meeting, will be held during the morning hours, so that each afternoon will be left free for such entertainment as bridge, golf, swimming, and the countless other pleasures Atlantic City has to offer. A larger attendance than ever is expected this year and every effort is being made to insure the pleasure and comfort of the auxiliary visitors.

Pennsylvania

There are forty-seven county auxiliaries in Pennsylvania, with a membership of 2,400. The county auxiliaries are grouped in eleven districts, which correspond to the councilor districts of the state medical society. Each district has a councilor elected by the state auxiliary. The councilors keep in close touch with the county auxiliaries, advising and assisting them and acting as liaison officers between the county auxiliaries and the executive board.

In Chester County the auxiliary has given many educational programs on maternal health in which organizations and medical authorities have cooperated. Dr. Samuel J. Dickey, county health adviser, has given a series of talks to classes composed of young mothers.

At a recent meeting of the Mercer County Auxiliary, Miss Frances Shirley, superintendent of the Pittsburgh Industrial Home for Crippled Children, was speaker. At another recent program Miss Katherine Lally, state nurse in charge of work in Mercer County, spoke on the real merits of the fund for underprivileged rural school children. From this fund, the auxiliary supplies glasses for needy children and gives them the opportunity to become average students.

The Northampton Auxiliary held its regular meeting in November, with a bazaar for the benefit of the Medical Benevolence Fund.

The Woman's Auxiliary to the Philadelphia Medical Society held its regular meeting in November in the medical society building. Dr. W. W. Comfort, president of Haverford College, was speaker. At this meeting more than thirty-four physicians' wives were welcomed. Later in the month there was a card party and sale for the benefit of the Welfare Fund. The net proceeds amounted to $180. In December a Christmas sale at the home of the president increased the welfare fund $400.

The *Formula,* a monthly publication issued by the Philadelphia Auxiliary, contains the list of officers and committees of the auxiliary, gives the program and tells of the various activities of the auxiliary. Its February issue contains a message from the president, Mrs. John Allan Bertolet.

Medical Economic Abstracts

THE PHYSICIAN IN WORKMEN'S COMPENSATION

The objectives of workmen's compensation for occupational diseases in relation to the medical profession are discussed in a report of the Committee on Standard Practices in the Problem of Compensation of Occupational Diseases of the American Public Health Association (Supplement to the *American Journal of Public Health* **27**: 73 [March] 1937). These objectives, as laid down by the committee, are as follows:

1. Fair recompense for care and treatment rendered to workers injured in their occupations.
2. Maintenance of ethical and confidential relationships between physician and his patients, and of his impartial standing and independence of thought and judgment. Increase in his knowledge of occupational diseases and their treatment and prevention.
3. It would undoubtedly improve the situation of the physician treating compensation cases if he could be divorced from responsibility for certification of disability for cash benefits. The organization of an impartial medical examination, impartial expert testimony, or a medical advisory council, the function of which is to determine the cause and extent of disability in all disputed cases, is a step toward this end.

"RICH MAN'S" AND "POOR MAN'S" MEDICINE

The *New York State Journal of Medicine* (**37**: 538 [March 1] 1937) points out a frequently overlooked phase of socialized medicine in its relation to the workers when it says:

"A root error at the bottom of the wrong thinking about socialized medicine is the assumption that any one doctor is just as good as any other doctor. At present the worker can pick his own physician; under socialized medicine he can choose only among the panel doctors. Are the panel doctors likely to be better or poorer than the ones in private practice? It would be invidious to cast the slightest reflection on any medical man who may be thinking of going in for state medicine, but would it be human for a man who could make a good living in private practice to accept instead a poor living on the panel? Would or would not state medicine be likely to sort out the physicians into two lots, the 'rich man's' doctors and the 'poor man's' doctors?

"This splitting effect of state medicine has not been stressed very fully before. It is of the first importance to the classes who will be relegated into the 'poor man's' medical category, and they should be awakened to its possibilities."

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, APRIL 17, 1937

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Works Progress Administration Activities

(Continued from page 128B)

Hospital Construction and Repair

The type of hospital construction work being done by the Works Progress Administration comprises enlargement and modernization of old or overcrowded hospitals, notably hospitals for mental diseases; general repairs; removement of fire hazards; the replacing of wooden structures by steel and concrete buildings, and the building of new hospitals where need appeared, chiefly in the more sparsely settled states and younger communities. Nothing in the nature of a national hospital building program is being attempted.

Under the Works Progress Administration more than 800 hospitals have been built or repaired. Under the Federal Emergency Relief Administration, eighty hospitals were built and 1,013 enlarged or repaired. Hospitals and sanatoriums for treatment of tuberculosis account for a large share of the new hospital construction. In Arizona a preventorium for potential cases of tuberculosis in children has been built by the Works Progress Administration.

Federal Emergency Relief Administration

The Works Division of the Federal Emergency Relief Administration, in operation from the summer of 1934 to the summer of 1935, accomplished considerable work of a similar character to that described. The complete report shows, in forty-two states, 3,530,000 home visits by nurses; in eight states, 68,581 examinations of vision; in six states, 13,003 examinations of hearing; in seven states, 84,793 examinations of nose and throat; in thirteen states, 782,707 dental examinations; in six states, 25,063 blood corpuscle examinations; in twenty-eight states, 1,642,763 general health examinations. Approximately 450,000 special tests were made as follows: Schick in thirteen states, 168,668; Dick in one state, 590; Mantoux in eight states, 26,663; Wassermann in ten states, 15,891; other and nonspecified in ten states, 238,132. Approximately 200,000 corrections for physical defects were made as follows: dental in fourteen states, 140,518; sight in ten states, 9,430; hearing in three states, 1,055; nose and throat in ten states, 10,210; other and unspecified in fourteen states, 38,869. A total of 1,355,304 immunizations were carried out as follows: typhoid in fifteen states, 608,943; diphtheria in twenty-one states, 417,571; smallpox in seventeen states, 151,503; scarlet fever in five states, 994; measles in one state, 510; unspecified in three states, 175,783.

Dental

Dentists on relief rolls have been, where possible, attached to an existing general medical clinic operated under public health authorities or incorporated in a school hygiene program. Where conditions warranted, special dental clinics have been set up to care for children and adults on relief or recommended by welfare agencies. Both in cities and in rural districts the need for dentistry by persons unable to pay for treatment has been found great. In New York City approximately 100 dental clinics for children from kindergarten age to 4B grade are operating under the Works Progress Administration and employing a staff of more than a hundred persons, including dentists, dental nurses, record clerks and other necessary attendants. In the month of August 1936, 24,000 patients were registered or readmitted. New York City has also a number of Works Progress Administration dental clinics for adults on home relief or referred by a responsible welfare agency. These clinics provide 1,050 chair hours

a week and are capable of giving employment to eighty dentists. During the month ended July 20, 1936, 1,797 new patients were registered and 8,877 old patients were treated. Recently a dental laboratory has been set up in New York City to offer prompt aid, with dentures, to destitute persons who have prospects of private employment contingent on improving the appearance of their teeth.

An example of dental surveys of school children is one that has been carried out in San Francisco with the aid of federal relief funds. This project grew out of a smaller undertaking by the San Francisco Dental Society and is supervised by the secretary of the society. The mouths of 55,000 school children have been examined. The dental needs, if any, of each child were reported to the parents or guardian. The complete data are being tabulated by Works Progress Administration clerical workers for publication by the California State Dental Association and will serve as a basis for an improved dental hygiene program for the schools.

Other surveys of similar character have been made or are now in progress under the works program of the government in many communities, large and small, sometimes as part of a general child health program and sometimes as a separate undertaking under the leadership of the local dental society.

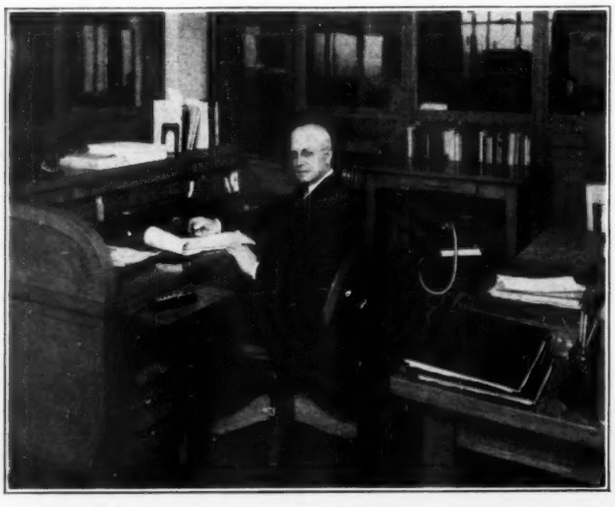
(To be continued)

The Home of the American Medical Association

NOTE.—*This is the sixteenth of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

BUREAU OF LEGAL MEDICINE AND LEGISLATION

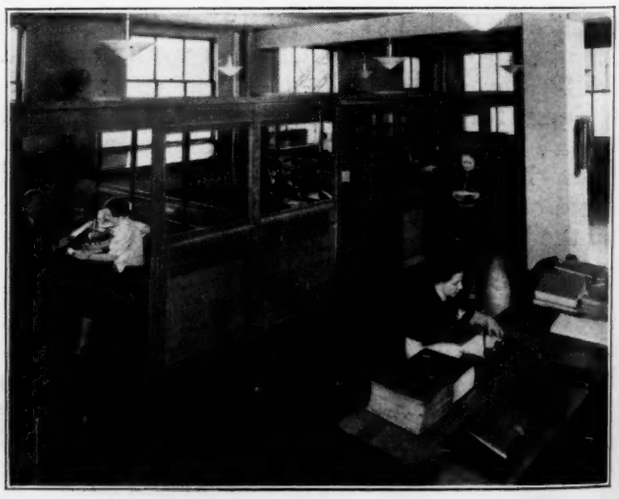
The House of Delegates at St. Louis in May 1922 recommended that the Board of Trustees establish a central bureau "the duties of which shall pertain to legislative matters and medico-legal problems in which the whole medical profession may be interested."



William C. Woodward, M.D., LL.M., Director, Bureau of Legal Medicine and Legislation.

Dr. William C. Woodward, a licensed physician and a member of the bar, has been director of the Bureau of Legal Medicine and Legislation since its establishment. The staff of the Bureau, located on the fourth floor of the headquarters office, now comprises, in addition to Dr. Woodward, Mr. J. W. Holloway Jr. and Mr. T. V. McDavitt, both lawyers, Dr. E. Ransom Koontz, a licensed physician and a lawyer, Miss B. T. McDonald, chief clerk, and three clerical assistants.

The Bureau keeps in touch with congressional legislation and with the activities of the departments in Washington through current publications, supplemented by the services of a Washington correspondent. The Director of the Bureau goes to Washington from time to time as occasion requires. State legislation is followed through a legislative reporting service that notifies the Bureau of the introduction of bills of interest to the medical profession in each of the several state legislatures, supplies copies of such bills as soon as practicable, and advises the Bureau of their progress.

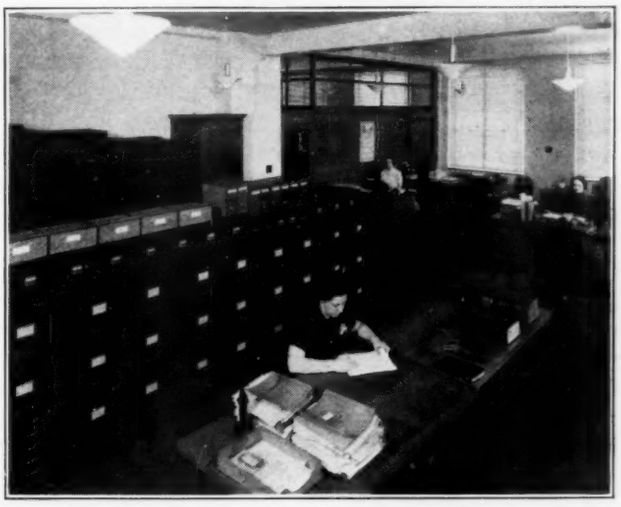


Assistants to the Director of the bureau from left to right are: J. W. Holloway Jr., E. Ransom Koontz and T. V. McDavitt.

The American Medical Association, through its Bureau of Legal Medicine and Legislation, assumes the initiative with respect to federal legislation. It acts, however, with respect to state legislation only as an adviser and aid to

the state associations, calling their attention to such state legislation as may be of interest, aiding them in analyzing and understanding proposed state legislation, and so far as is practicable, on request from a constituent state association, drafting new legislation.

Through the published reports of the decisions of the courts of last resort, federal and state, and of some of the more important appellate courts, the Bureau studies court decisions of interest to the medical profession and analyzes them for publication in THE JOURNAL and for ultimate publication in a book known as Medicolegal Cases: Abstracts of Court Decisions, two volumes of which, covering ten years, have been published. Inquiries from Fellows, members, subscribers and others on matters of medicolegal interest are answered whenever practicable. Problems of legal medicine are studied and correspondents advised concerning them. Legal problems of a purely personal nature are necessarily referred back to the writer with the suggestion that he employ local counsel, for the American Medical Association cannot undertake to render personal legal service to its Fellows and members. On request of counsel so employed, however, the Bureau renders such aid as is possible, the special facilities of the Bureau in the field of legal medicine sometimes



Bureau of Legal Medicine and Legislation: clerical staff and filing space.

simplifying the problems of counsel who but seldom have to enter that field.

(To be continued)

Rural Medical Service

NOTE.—*This is the sixteenth of a series of articles on Rural Medical Service, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

The rural physician has always been primarily a practitioner of the art of medicine. Although he has usually tried to keep abreast of medical science and to apply what he has learned, he has been forced to put greater dependence on his unaided, but trained, senses than on devices to extend the scope of his senses. Although it was just the trained skill required to classify the reports of these senses and to assemble the essentials in a clinical unity that characterized a Sydenham or an Osler, yet during the years under discussion there was a tendency to underrate this skill as compared with the same use of the often no more reliable information obtained by the application of microscopes, chemical reagents and x-rays often to dead tissues and fluids removed from their vital association with the whole sick human being. It would seem probable that this attitude of the public and the medical profession also contributed in attracting patients and physicians to the more fashionable and showy equipment of the city.

If these factors are summed up there would appear to be reason to believe that during the years from about 1898 to 1929 there was an especially large number of tendencies, many of them temporary in character, operating to encourage a drift of medical facilities from rural to urban localities. Human memory is seldom able to judge social movements extending over more than a generation, and there is always a tendency to assume that any present trend is permanent. It is not surprising, therefore, that practically every recent discussion of rural medical service has assumed a continuous, long-time decline in such service.

An example of these generalizations, only a little less exaggerated than many others, is found in a formal statement to the House of Delegates of the American Medical Association by a representative of the National Grange, Nov. 24, 1927:[11]

> The average age of rural doctors throughout the country in 1925 was 52 years. Since the average age at death of American physicians is 62 years, it will be seen at a glance that the present generation of country doctors will have practically disappeared in another ten years . . . the number of physicians in practice is actually decreasing and . . . their number will not regain its present size of 130,000 until 1965.

The 1936 Medical Directory contains the names of 165,160 physicians, of whom more than 150,000 are in active practice and the average age at death has risen to above 64 years. The mistake of these prophets, as it is with most of the tribe, arose from mistaking temporary for

11. A. M. A. Bull. **23**: 101 (April) 1928.

permanent trends and overlooking a multitude of modifying factors.

This includes those in active teaching positions, in the army and navy, in health departments, and in other positions where they are engaged in furnishing essential contributions to the task of providing a medical service for the people. It is impossible to determine the exact number in private practice but the best estimate that can be made from available information is about 135,000.

While carefully avoiding the pitfalls of prophecy, it is possible to examine somewhat more closely some of the trends and factors the uniformity and permanence of which have been generally assumed. The most basic of these trends, the movement of population from rural to urban districts, has continued for so long that it is not surprising that it has been generally accepted as a fixed and permanent trend. Yet we learn that,[12]

> From 1930 to 1933, rural areas in practically all states showed significant gains while urban areas either lost population or failed to gain. Coincident with these changes, industrial employment fell precipitously. But from 1933 to 1934 employment increased, and the available school census figures for these two years show for rural areas either a downward trend or a reduction in the rate of increase. Conversely, the census for the urban counties either decreased at a reduced rate or increased slightly.

Temporarily, at least, this long-time trend was reversed and then apparently was resumed in some sections at a reduced rate.

In all discussions of ratio of physician to population there appears to be a tendency to overlook the fact that the population of the United States is perhaps the most fluid of that of any nation in the world. Not only has there been a rolling wave of people moving through three centuries from East to West, but within that dominant movement there have been innumerable other currents. Lumbering, mining, oil production, and construction are but a few of the industries that have created cities only to have them disappear with subsequent industrial changes. Another dominant movement, that of the flight from the land to the cities, has already been discussed; this has never been uniform over the entire country. Changes of climate and types of farming have also caused whole regions to be filled up and then depopulated—in some cases several times within a century.[13]

(To be continued)

12. Goodrich, C. L.; Allen, B. W., and Hayes, Marion: Migration and Planes of Living, 1920-1934, University of Pennsylvania Press, 1935, p. 62.

13. Such movements are discussed by Thornthwaite, C. W.: Internal Migration in the United States, University of Pennsylvania Press, 1934. Goodrich, Allen and Hayes.[12] Creamer, D. B.: Is Industry Decentralizing? University of Pennsylvania Press, 1935.

Official Notes

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title Your Health. The topics and speakers for the next three programs are:

April 20. A Fight Half Won (Tuberculosis), W. W. Bauer, M.D.
April 27. Keeping Your Baby Well, W. W. Bauer, M.D.
May 4. Healthy Mothers, W. W. Bauer, M.D.

The time of the broadcast is Tuesday afternoon at 3 o'clock central standard time (4 o'clock eastern time, 2 o'clock mountain time, 1 o'clock Pacific time).

MEDICAL EXHIBITS

April 26—Bronx County Better Health Week, New York. Exhibits on nutrition and the prevention of accidents.

April 28-29—Ohio State Medical Association, Dayton. Exhibits on syphilis and on the activities of the American Medical Association, including the Councils on Physical Therapy, Foods, and Pharmacy and Chemistry.

May 2-5—Minnesota State Medical Society, St. Paul. Exhibits on objectionable obesity cures, mechanical nostrums, medical economics, syphilis, posture, and health information for the public by the physician.

May 4-6—Kansas State Medical Society, Topeka. Exhibits on what the public is thinking about health, allergic asphyxia and food fads.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:
April 22—Rotary Club, Evanston, Ill.
April 26-27—Louisiana State Medical Society, Monroe.
May 4—Irving Park Woman's Club, Chicago.
May 7—Rogers Park Congregational Church, Mayflower Circle, Chicago.

DR. FRANK J. CLANCY:
April 20—Virginia Polytechnic Institute, Blacksburg, Va.
April 23—University of Maryland Medical Forum, Baltimore.
April 29—Y. W. C. A., Grand Rapids, Mich.

DR. CHARLES GORDON HEYD:
April 21—Medical Association of the State of Alabama, Birmingham.
April 27—New Jersey Medical Society, Atlantic City.
April 28—Polyclinic Medical School and Hospital, Annual Banquet, New York City.
April 29—Cornell Medical School Alumni Society, New York City.
May 3—Hartford Medical Society, Hartford, Conn.
May 5—Meeting of Organized Medical and Dental Professions, New York City.

DR. R. G. LELAND:
April 26—Columbus Academy of Medicine, Columbus, Ohio.
May 6—American Association of Industrial Physicians and Surgeons, Detroit.

DR. PAUL A. TESCHNER:
May 4—Lions Club, Des Plaines, Ill.

Medical Legislation

Medical Bills in Congress

Bills Introduced.—S. 1889, introduced jointly by Senator Hatch and Senator Chavez, both of New Mexico, proposes to authorize the Secretary of the Interior to convey certain lands to the state of New Mexico for the use and benefit of the Carrie Tingley Crippled Children's Hospital. S. 1960, introduced by Senator Hayden, Arizona, proposes to prohibit the mailing of certain classes of unsolicited merchandise. S. 2102, introduced by Senator Black, Alabama, and H. R. 6180, introduced by Representative Connery, Massachusetts, propose to establish a Civilian Conservation Corps to provide employment and vocational training for youthful citizens of the United States who are unemployed and in needy circumstances. Enrollees in the corps will be furnished medical attention and necessary hospitalization. S. 2113, introduced by Senator Reynolds, North Carolina, proposes to provide that the benefits accorded veterans of the World War on account of death or disability incurred or aggravated in service shall be accorded to veterans and dependents of veterans of any future war. H. R. 5811, introduced by Representative Dunn, Pennsylvania, proposes to authorize an appropriation of $30,000,000,000 to provide employment and to end poverty in the United States. The bill proposes to provide medical, surgical and dental care for beneficiaries of the bill. H. R. 5816, introduced by Representative Hill, Oklahoma, proposes to provide that the workmen's compensation act of any state may apply, within such state, to employments in interstate commerce. H. R. 5850, introduced by Representative Knutson, Minnesota, proposes to amend the social security act to provide for grants to states for furnishing aid to needy individuals who are physically handicapped. H. R. 6175, introduced by Representative O'Connell, Montana, proposes to authorize an appropriation of $495,000 to erect an additional unit, of 165 bed capacity, to the existing Veterans' Administration facility at Fort Harrison, Montana, for the treatment of general medical and surgical disabilities. H. R. 6207, introduced by Representative Norton, New Jersey, proposes to extend certain benefits of the United States Public Health Service to officers of documented vessels of the United States who are holders of unexpired licenses of the United States Steamboat Inspection Service, to seamen who have served forty days or more on a documented vessel, and to seamen whose wages have been diminished by reason of contributions made to the fund for the relief of sick and disabled seamen. H. R. 6209, introduced by Representative Terry, Arkansas, proposes to authorize an appropriation of $300,000 to construct a 164 bed-patient capacity addition to the existing veterans' facility at Little Rock, Ark., for the treatment of neuropsychiatric disabilities. H. R. 6216, introduced by Representative Church, Illinois, proposes to authorize an appropriation of $1,650,000 to erect two 165 bed-patient capacity additions to the existing veterans' facility at North Chicago, Ill., for the treatment of neuropsychiatric disabilities. H. R. 6217, introduced by Representative Maas, Minnesota, proposes that any commissioned officer or enlisted man of the Army, Navy, Marine Corps, Coast Guard, Geodetic Survey or United States Public Health Service who is placed on the retired list for physical disability resulting from an airplane accident while regularly detailed to duty involving flying shall be retired with three fourths of his total pay and allowances, including aviation pay. H. R. 6276, introduced by Representative Gambrill, Maryland, proposes to authorize an appropriation of $1,500,000 to erect a veterans' hospital in or near the city of Baltimore for the treatment, apparently, of general medical and surgical disabilities. H. R. 6281, introduced by Representative Sumners, Texas, proposes to provide for the seizure and forfeiture of vessels, vehicles and aircraft used to transport narcotic drugs, firearms and counterfeit coins, obligations, securities and paraphernalia. H. R. 6283, introduced by Representative Sumners, Texas, proposes to increase the punishment of second, third and subsequent offenders against the narcotic laws. H. R. 6289, introduced by Representative Wood, Missouri, proposes to pay a monthly pension of $100 to any soldier, sailor or marine, 80 years old, who served one year or more on foreign soil in the service of the United States in the Spanish-American War and who was honorably discharged from service, disabled by reason of disease contracted in line of duty. H. R. 6290, introduced by Representative Luecke, Michigan, proposes to authorize an appropriation of $1,500,000 to erect a veterans' hospital in or near the city of Gladstone, Mich., for the treatment, apparently, of general medical and surgical disabilities. H. R. 6294, introduced by Representative Gasque, South Carolina, proposes to grant pensions and increases of pensions to needy war veterans.

Colorado

Bill Enacted.—S. 97 has been approved by the governor, making it the duty of any physician, nurse or midwife, or other person who assists or is in charge at the birth of any infant or has care of the infant after birth, to treat the eyes of the infant with a prophylaxis approved by the state board of health. Such treatment must be given as soon as practicable after the birth of the infant and always within one hour.

Delaware

Bill Introduced.—House Substitute for H. 472 proposes to make it "the duty of every attending or consulting physician, nurse, parent or guardian having charge of any minor under six years of age, who is totally deaf, or whose hearing is impaired," to report the facts immediately to the state board of health.

District of Columbia

Changes in Status.—H. R. 4876, H. R. 4982 and H. R. 5142 have been reported to the House of Representatives with the recommendation that they pass, proposing to issue, respectively, licenses to practice the healing art in the District of Columbia to Dr. Frederick W. Didier, Dr. William Justin Olds and Dr. William Hollister.

Bill Introduced.—H. R. 6031, introduced by Representative Collins, Mississippi, proposes to enact an income tax law for the District of Columbia. The bill does not specificially provide for the deductibility of traveling expenses incurred while away from home in the pursuit of a trade or business. There may arise, therefore, some question with respect to the deductibility under the bill of expenses incurred in attending medical meetings. The bill, furthermore, contains no authorization for the deductibility of expenses incurred in the pursuit of postgraduate study.

Georgia

Bill Enacted.—House substitute for H. 250 has been approved by the governor, authorizing the formation of corporations to operate nonprofit hospital service plans whereby hospital care may be provided by such corporations through established hospitals with which they have contracted for such care to be rendered members of the corporation. Such corporations are not to be permitted to contract to furnish its members with physicians or any medical services nor are such corporations to control or attempt to control the rela-

tions existing between their members and their physicians. Such corporations are to operate under the supervision of the state insurance commissioner.

New York

Bills Passed.—S. 615 has passed the senate and the house, proposing to amend the law requiring the licensing of laboratories and other places in which live pathogenic germs are handled or cultivated, so as to (1) require such licensure from all places "where live pathogenic micro-organisms or viruses other than vaccine virus are handled or cultivated" and (2) to prohibit all persons, other than licensed practitioners of medicine, dentistry or veterinary medicine or persons acting under the direct supervision of the licensed practitioners noted, to possess or cultivate live pathogenic micro-organisms or viruses other than vaccine viruses unless such persons have satisfied the state commissioner of health that such micro-organisms or viruses in their possession will not become a menace to the public health and unless they hold a permit issued to them by the state commissioner of health. S. 838 has passed the senate, proposing that "every city, town and village . . . shall be liable for, and shall assume the liability to the extent that it shall save harmless any physician rendering medical services of any kind gratuitously to a public institution, from damages for personal injuries alleged to have been sustained by reason of the malpractice of such physician while engaged in the rendition of such services."

Pennsylvania

Bills Introduced.—S. 703 and H. 1933 propose to prohibit the manufacture or sale or advertising for sale of misbranded or adulterated foods, drugs and cosmetics. S. 736 proposes to authorize the sexual sterilization of any inmate of a state or licensed institution for the mentally defective whenever the superintendent of such an institution and two disinterested physicians are of the opinion that it is for the best interests of the inmate and of society that such inmate be sexually sterilized. H. 1969 proposes to prohibit the granting of an appropriation to any state-aided hospital unless the board of directors, trustees or managers of such hospital agree with the department of welfare that the hospital will not employ any graduate nurses for less than $50 a month and maintenance, any student nurse for the first year for less than $10 a month and maintenance, any student nurse for the second year for less than $15 a month and maintenance, and any student nurse for the third year for less than $20 a month and maintenance or to employ any graduate nurse or student nurse for a longer period than eight hours in any twenty-four hours, or more than forty-eight hours in any one week, except in emergencies. H. 1987 proposes to appropriate $50,000 to the department of health for research seeking to prevent anthracosis and asthma among miners.

Vermont

Bill Introduced.—H. 367, a substitute for H. 287, to amend the workmen's compensation act, proposes that "upon request of the employee to the commissioner and with his approval the employee may select a duly registered physician or surgeon, other than those provided by the employer or his insurer, to furnish such reasonable surgical and medical services at the expense of the employer or his insurer."

Woman's Auxiliary

Chicago Auxiliary

By invitation of the council of the Chicago Medical Society, the president, accompanied by Mrs. E. A. Christofferson, chairman of the ways and means committee of the auxiliary, spoke before the council on "The Importance of the Woman's Auxiliary in Medical Organization," after which the council voted to recommend to the board of trustees the appropriation of $500 for work of the auxiliary.

The Chicago Auxiliary has a membership of 500 and is composed of the central society and seven branches. The eighth branch will be organized March 9. The aim of the central society is to have fifteen branches, which number will correspond with the fifteen branch societies of the Chicago Medical Society.

Honored guests at the first auxiliary meeting were the president of the Chicago Medical Society, Dr. Thomas P. Foley, and the presidents of the branch medical societies.

Dr. John S. Coulter, member of the Council on Physical Therapy of the American Medical Association, and Dr. Cleveland White of the department of dermatology at Northwestern University Medical School, were speakers at the laity day luncheon meeting in November. The subject discussed by both doctors was "Dangers of Too Much Sun and Ultraviolet Rays."

The annual bridge tea was a membership drive, to which the wife of every member of the Chicago Medical Society was invited. Mrs. Robert E. Fitzgerald, president of the National Auxiliary, was guest of honor at the tea.

Dr. William C. Woodward, director of the Bureau of Legal Medicine and Legislation of the American Medical Association, was speaker at the Legislation Day meeting on March 3. His subject was "Proposed Legislation as It Affects the Practice of Medicine." Mrs. Eben J. Carey, national treasurer, Mrs. Olin West, Mrs. Morris Fishbein, Mrs. W. D. Cutter, and Mrs. W. C. Woodward, were special guests at this meeting.

Other programs given by the Chicago Auxiliary during the year have been as follows: Dr. Huberta Livingston, travelogue "European Clinics"; Dr. H. W. Elghammer, "Effects of Radio and Stories on the Child"; Dr. Elmer Hagens, "Bronchoscopy"; Dr. Leo R. Campbell, Rush Medical College, "The Benefits and Dangers of Reducing"; Dr. Walter P. Fisher, University of Illinois, "Modern Facts about Feet"; Mrs. Fred L. Fradfute, League of Women Voters, brief talk on Food and Drug Law; Dr. Edward H. Ochsner, "Social Security Act."

Mrs. G. Henry Mundt spoke February 22 at a conference of the Jewish women's organizations. More than 100 delegates were present, representing more than 100 Jewish organizations.

The auxiliary and its branches have subscribed for and placed more than 300 subscriptions to *Hygeia* in libraries, schools and the reading rooms of Y. M. C. A.'s and Y. W. C. A.'s in Chicago. The *Hygeia* chairman has got in touch with more than fifty of the largest business concerns in the city. More than 100 subscriptions have been secured from individuals.

Iowa

Suggestions for programs during 1937 have been prepared by Mrs. M. C. Hennessy, chairman of the Program Committee of the Woman's Auxiliary to the Iowa State Medical Society. These program suggestions are to be adapted to local needs:

1. Health in Our Schools; Periodic Health Examinations; Tuberculin Tests; Health of Teachers. The benefit derived from such health programs lies in

creating a friendly feeling with school officials and in stressing the fact that health programs and needs should be brought to medical sources. A physician speaker on such programs allows for an exchange of views with the school nurse, the athletic supervisor and the district health chairman of Parent-Teachers Association.

2. Basic Science Law in Iowa; Quackery; How to Choose a Doctor (group discussion). These programs will acquaint audiences with the need for the basic science law and will give them an understanding of quackery and its products. The literature prepared by the American Medical Association on "How to Choose a Doctor" is most enlightening.

3. Importance of Conservation of Eyesight (adult and child); Feet (athletic feet, posture, sleep). *Hygeia* has excellent material on all these subjects. A program on eyesight conservation gives the opportunity to present statistics on harmful dyes and quackery cosmetics.

4. Allergy (to nutrition, diet, foods, pets, pollen); Food Facts; Balanced Diet. The study of allergy may be used in connection with a trip through kitchens of hospitals, schools, or perhaps hotels. By such visits, members may discover lax food laws. This program might lead to a discussion of proper sanitation and the amebic dysentery epidemic of recent years.

5. Progress in Preventive Medicine; Outstanding Medical Advances.

6. X-Ray and Radium Therapy.

7. Whooping Cough, Complications; Quarantine and Placard Laws; Common Colds. A study of these subjects will familiarize members with quarantine and placard laws, health programs and school cooperation.

8. Vacations; Recreation and Exercise; Ventilation. Such programs stress an all important question; namely, that of recreation for physicians. This may lead to hobby discussion, ventilation and modern air conditioning.

9. Cancer Control; Immunization; Sex Problems (under direction of county medical society). Programs on these topics should not be attempted without the full cooperation of the medical society.

Care should be taken in all these programs not to duplicate programs given by parent-teacher Associations and by women's clubs.

In the February issue of the *Journal of the Iowa State Medical Society* the woman's auxiliary announces a health essay contest in which it cooperates with the speakers' bureau of the Iowa State Medical Society. The purpose of the sponsors of this—the fourth—annual health essay contest is to aid in promoting a nation-wide program of health education and to stimulate interest in this important subjct among high school students of the state of Iowa. Selected as the subject for the 1937 contest is "The Importance of Good Vision," and the sponsors suggest that the following points be given special attention:

(*a*) Care of the eyes and their value:
1. Valuable as an instrument of learning.
2. Necessity for protection against injury and disease.

(*b*) The use of eyeglasses:
1. History of eyeglasses.
2. Value of eyeglasses in the development of the child, in relieving eyestrain, and as a necessity for vision in old age.

The contest opened February 1 and was to close March 15. Any high school student in the state could participate in the contest; the length of the essays was not to exceed 1,200 words. Prizes were to be awarded as follows: first prize, $20; second prize, $10; third prize, $5, and ten $1 prizes to the next ten highest ranking essays. An additional prize to the winner of first place was to be a trip to a centrally located broadcasting station to present the winning essay over the radio. Schools whose essayists won first, second and third place were to be given a year's subscription to *Hygeia.*

A member of the state department of public instruction, a member of the state department of health, a member of the Iowa State Medical Society, and two members of the woman's auxiliary were to be the judges in this contest.

Nebraska

Tri-County No. 1 had a combined banquet of the medical society and the auxiliary at Grand Island, Nebraska, on December 17. Mrs. James Mac Woodward, president of the state auxiliary, spoke on "Aims and Accomplishments of the Auxiliary."

Tri-County No. 2 (Bert, Washington and Dodge) Medical Society and the auxiliary also held a dinner meeting for their members in January. Dr. Byers, president of the medical society, invited the auxiliary members to hear Dr. Frank Conlin of Omaha speak on "Diabetes." Following this address, members of the auxiliary adjourned for a short business session, at which time Mrs. Conlin, president of the Faculty Women's Club of Omaha, gave a report of the activities of this organization.

In January the Lancaster County Auxiliary held a social meeting at the University Club, and in February a program meeting at the home of one of its members. Dr. A. L. Miller of Kimball spoke on "Nebraska's Medical Legislation."

Members of the Richardson County Medical Society and the auxiliary attended a dinner party January 21 at Hotel Weaver, Falls City. Following the dinner the auxiliary held a business session in charge of the county president, Mrs. H. R. Miner, who for many years was chairman of exhibits of the National Auxiliary.

New York

The Woman's Auxiliary to the Medical Society of the State of New York, which was organized in 1936, has now eleven county auxiliaries.

Kings County, the largest group, is planning for its second annual luncheon, to be held at the Hotel Astor, in New York, May 11.

Nassau County has vitally interested committees on economics and legislation. The members are also planning a Child Health Day program.

Onondaga County has been helping materially in maternal welfare work and with social hygiene programs.

Cayuga County held a meeting in Auburn, March 18. Mrs. Frances R. Irving, president-elect of the state auxiliary, Mrs. Carlton F. Potter, convention chairman, and Mrs. John J. Buettner, public relations chairman, will be guests.

Madison County, in view of the fact that Oneida County has no auxiliary, has invited the wives of Oneida County Medical Society members to attend its regular meetings.

Mrs. John L. Bauer, state president, held a meeting of the executive board and entertained the members at a luncheon in her home, February 17. Arrangements have been made for the second annual convention, to be held in Rochester May 24, 25 and 26. Mrs. Carlton F. Potter is chairman of the convention arrangements and Mrs. Edwin A. Griffin is chairman of the hobby show.

Following the meeting, Mrs. Frederick E. Elliott, second vice president of the state auxiliary, entertained the members of the executive board and a large number of county auxiliary officers and committee chairmen at a supper in her home in honor of Mrs. Frances R. Irving, president elect.

Among the out of town guests was Mrs. E. H. Starcher, president elect of the West Virginia Auxiliary.

Medical Economic Abstracts

MEDICAL PROGRAM IN MASSACHUSETTS

The conclusions as to a program were based on a survey of 500 families made by the Subcommittee on the Adequacy of Medical Care. There were 1,820 persons in this group, of whom 778 were ill during the period of the survey; sixty-seven, or 13.4 per cent, of these needed medical care that was not obtainable, and seventy-five, or 15 per cent, reported that finances prevented the use of a physician.

The committee recommended:

I. That each district society be urged to form within its area a health council, composed of carefully chosen representatives of the medical societies and the general public, these councils to have the following functions:
   1. Education of the public in the needs and possibilities of medical service, preventive as well as curative, and in the ways available for securing it.
   2. Making provision for suitable clinics or district visiting services where need is found (rural and factory village areas).
   3. Securing cooperation in its program from industrial, fraternal, social and health organizations.
   4. Establishing welfare department responsibility for an intelligent administration of medical care for the indigent and near indigent in each town and city by:
      (*a*) Employing the licensed physicians of the community at reasonable pro rata fees.
      (*b*) Subsidizing licensed practitioners to locate where there are no physicians in residence.
   5. Influencing established hospitals to broaden their function so as to serve as health centers in cooperation with local health departments and as welfare centers in cooperation with local welfare departments.
   6. Promulgating, locally organizing, and thereafter serving as an advisory body in the administration of any programs of voluntary insurance for hospitalization and medical care that may receive the approval of the state society.

The Committee also recommended:

II. That a state health council of similar constitution be developed whose functions shall be to coordinate the work of the local councils, advise as to methods, study legal relations and devise enabling statutes when necessary to simplify procedures and increase efficiency in carrying out the primary purpose of promoting better health by bringing adequate medical care to the people and relieving economic distresses that are detrimental thereto.

Four defects in the system of medical service are attacked by further provisions of the Massachusetts plan. These are: "(1) inadequacy of our laws governing the licensure of physicians; (2) defective distribution of medical facilities and practitioners in relation to the distribution of the population; (3) lack of information as to medical services obtainable and failure to recognize their own needs on the part of the people; (4) the so-called 'economic barrier' which results in neglect to secure needed medical care or supplies because of inability to pay for it."

A suggestion as to a method of securing medical service for those unable to pay for it is the organization of medical service on the basis of small hospital units, with support from the community and state funds where necessary, the cost of medical care for the indigent and the near indigent to be paid by the welfare department, as agreed on by the community and the medical society.

It is felt that in Massachusetts this would require little or no new buildings, since fairly adequate hospitals already exist in most communities.

It is believed that such an organization would permit the indigent sick in any community to be cared for by the individual physician through the proper authorities.

Compiled from the Proceedings of the Council of the Massachusetts Medical Society, June 9, 1936, and from information furnished by E. L. Hunt, M.D., chairman of the Sub-Committee on the Adequacy of Medical Care of the Massachusetts Medical Society.

MUNICIPAL DOCTORS IN ALBERTA

Provincial legislation permits municipalities to appropriate up to $2,000 as a bonus to secure a physician; if a municipality wishes to pay a larger sum, it must submit the proposition to referendum. As a result, municipal contracts vary according to the population to be served, type of service rendered, and the opportunity offered the physician to increase his remuneration from outside practice not covered by the contract. There is a wide variety of these contracts in operation. In one case the physician may receive from $4,500 to $5,500 annually and be required to supply every medical or surgical service required by all the residents of the municipality except the work of specialists and the care of social diseases. Under this plan he receives no mileage fee, pays his assistants and attends maternity cases either at home or in the hospital but does not furnish any except the most ordinary drugs or dressings.

In another case the municipality pays $4,000 for all the work in a municipality, but the district is divided between two physicians, with the patients assigned to the nearest one.

The third plan is found in a small municipality of some 300 families, where several physicians in different villages outside the municipality but adjacent to it have families allocated to them according to the location, unless a preference is manifested. Here the rate is usually fixed at about $10 per family and each physician is a medical health officer of the area assigned to him, without further fee.

There are other places where the physician gets a bonus of $2,000 or less, depending on the population and work, but in all cases he must also perform the duties of a medical health officer.

Still another plan provides that contracts may be made by the physician with the individual patient and family at a rate of $25 a year per family, payable in advance. An additional mileage charge of 25 cents per mile, one way, when the roads are good and 50 cents per mile when they are bad, is made. Such contracts are made on the basis of 150 or more families signing the contract. There are instances in which the rate per family is as low as $12, but in such cases much less service is given.

Physicians are not generally satisfied with these contracts, as there is a tendency to reduce the payments or to ask for more service on renewal of the contracts. When there is no mileage allowance there are complaints of unnecessary calls. Many of the contracts would never have been signed except under stress of the depression.

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, APRIL 24, 1937

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GROUP HOSPITALIZATION

(A Survey by the Bureau of Medical Economics)

No other development in medical economics, with the exceptions perhaps of sickness insurance and state medicine, has incited more interest and discussion than has group hospitalization, or prepayment plans for hospital care.

The purchase of hospital service on a group basis has existed in some form or other for many years, but only recently has "group budgeting for hospital expenses" been strongly advocated. The factors that have caused this sudden activity and the forces that are urging the adoption of group payment methods deserve careful study. It is important, moreover, to determine whether or not the plans that are being promoted will really bring about the better medical service which is desired by the medical profession, the hospitals and the public, or whether such arrangements will actually direct hospital service into channels harmful to the progress of medicine, inimical to the purposes of hospitals, and injurious to the public health.

The movement for group purchase of hospital facilities has developed most rapidly since 1931. Since then group hospitalization plans have been the subject of numerous articles, speeches and news stories. The present study was undertaken as an analysis of the experiences of group hospitalization plans that might possibly be useful both to administrators of present plans and to those who desire to organize new plans.

During the recent economic depression, hospital income from endowments and voluntary contributions was decreased by about two thirds, the charity load was increased almost fourfold, and huge capital investments or fixed costs remained unmet. These conditions induced many hospitals in the United States to adopt group hospitalization plans as a means to secure needed income. The plans are offered by their sponsors as an equitable method of providing low cost hospitalization. If hospital administrators are to depend on financial assistance from group hospitalization plans, careful consideration should be given to the possible effects of such organized plans on the future of hospitals.

Chapter I

THE BACKGROUND OF GROUP HOSPITALIZATION PLANS

GROUP PAYMENT PLANS

A group hospitalization plan is one in which groups of persons, or individuals, make periodic payments into a fund to enable each individual to receive hospital care when needed. This concept must be more narrowly defined, however, to exclude industrial health services, medical and hospital benefit organizations, mutual benefit associations, trade union plans, fraternal or lodge plans, group medical practice plans, community health associations, and college student health services. Although most of these plans collect payments from members to establish a fund for hospitalization, they are not here considered as group hospitalization plans.

Medical and hospital service can be paid for either directly by the patient to the physician and hospital or by some organization which collects regular contributions from each of its members into a fund for the benefit of the individual member who may require such services. The first is the traditional fee-per-patient method. The second is the group payment or the so-called insurance method. The group payment or "insurance" plans came into existence largely to meet the uncertainties created by

industrialism. The individual bound by a wage contract with his employer is largely dependent on his own resources to provide relief from misfortune. He can no longer expect the personal assistance from guild or overlord which existed under feudalism. The great shifts of population, the destruction of old and the creation of new occupations, and the cyclic swings in production causing alternate periods of work and unemployment are some of the uncertainties of industrialism which have caused much individual poverty and called for group intervention. The resulting social dependence could be combated either by altering the industrial organization to increase insufficient incomes, thereby making the individual self reliant, or by acknowledging the inevitability of insufficient incomes and devising methods to relieve the destitute. It is clear that group payment plans accept the inevitability of industrial uncertainties and insufficient incomes and are formed to serve as palliative methods.

Group payment plans for medical and hospital services seem to have evolved from one of two origins: (1) the early contract practice plans whereby medical and hospital services were made available to remote mining and lumbering communities, and (2) mutual benefit plans organized by fraternal societies, labor unions or employees and employers as a substitute for "passing the hat" when a worker was disabled by illness or accident and his family became impoverished.

The system of group payment through payroll deduction for medical and hospital care has been of long standing in the mining, lumbering and railroad industries. The employers in these industries, because of the isolation of the communities in which the workers lived, had to make contractual arrangements with physicians in order to secure necessary medical services to alleviate the consequences of sickness and accidental injuries. Likewise the employer furnished food, clothing, housing and all other essentials to his employees. These activities were undertaken when industry was developed in remote areas, but when independent community facilities became available the "company store" or "commissary" operations were discontinued.

In some places it was found necessary to pass laws prohibiting payment of wages "in kind" to prevent employers from monopolizing such services for employees. The provision of medical and hospital care, however, was retained despite the availability of these services through independent agencies.

As the legal responsibility of the employer for industrial injuries developed and was affirmed by laws, the employer either passed the liability on to insurance companies or used the plant medical system to care for injured workers. Furthermore, even when the compensation laws were passed to stop abuses under employers' liability by fixing definitely the financial responsibility of the employer for industrial injuries, the existing methods by which employees received medical care from the employer were not disturbed.

(To be continued)

Works Progress Administration Activities

(Continued from page 134B)

PUBLIC HOSPITAL FACILITIES EXPANDED BY WPA AID

Facilities of public hospitals in all sections of the country have been enlarged and improved as one phase of the activities of the Works Progress Administration and its predecessors in the Federal Works Program—the Civil Works Administration and the Federal Emergency Relief Administration.

Hospital construction activities of these federal agencies were limited by law to work on public institutions, but indirectly the private hospitals also benefited in that increased public facilities relieved them of much of the heavy load of charity cases they had been called on to handle.

Hospitals in general felt the effects of the depression more severely perhaps than most other public agencies. Many private hospitals found themselves unable to meet the terrific pressure that was brought to bear on them. Private contributions, their almost sole means of support, had fallen off seriously, in some cases had been stopped altogether. Statistics of the American Hospital Association show that the number of free patients in all hospitals had increased fourfold in 1933 from the number in 1928. In the face of this situation, 400 hospitals—unable to find financing—were forced to close, thereby withdrawing more than 20,000 hospital beds from public use.

While the Works Progress Administration and its predecessors could do nothing directly to aid the sorely pressed private hospitals, they went with great vigor about the business of constructing new public hospitals and of repairing, improving and making additions to existing public hospitals. This accomplished much toward relieving the strain on the private hospitals and enabled many communities to give satisfactory hospital service for the first time in many years.

The final report of the Federal Emergency Relief Administration shows that eighty hospitals and sanatoriums had been constructed and 1,013 more repaired or improved by that agency. Of these, eight have a capacity of from fifty-one to 100 beds, fourteen have a capacity of more than 100 beds, and the others are smaller or of unspecified capacity.

Up to Sept. 15, 1936, the WPA had 295 projects for the construction of hospitals, according to its Division of Research, Statistics and Records. Of these, 179 had been completed by that date and 116 were in the process of construction. By the same date the WPA had 1,451 projects for the repair or improvement of hospitals, 710 of which had been completed and 741 of which were in the process of completion.

From the same source, complete tabulated statistics from seventeen states show that forty-four of the hospitals completed had a total bed capacity of 3,334, an average of about seventy-five beds to the hospital. This construction involved the completion of 358,824 square feet of floor space, an average of nearly 108 square feet per bed.

Complete tabulated statistics from twenty-nine states show that 347 of the hospitals repaired or improved had capacities of 89,426 beds and that they had 13,950,224 square feet of floor area.

All types of hospitals, sanatoriums and their appendages were included in the construction, repair and improvement. While general purpose hospitals were greatly in the majority, the WPA made possible the construction of a number of hospitals of special sanatorium types, such as tuberculosis hospitals, hospitals for crippled children, hospitals for the treatment of infantile paralysis, psychopathic hospitals and maternity hospitals. Dormitories for nurses and for civil employees were constructed or repaired.

In addition, the WPA erected or improved spaces for such important things as cancer clinics, venereal disease clinics and pathologic laboratories.

The Morris Memorial Hospital for Crippled Children, erected with WPA labor at Milton, W. Va., about half way between Huntington and Charleston, has attracted unusual attention by reason of the fact that it receives patients from all over the state. Sponsors for the project include a representative list of the foremost citizens of the state who long had planned such a hospital and had available a site in the nature of a fertile farm of 200 acres beneath which were deposits of salt water so necessary in hydrotherapeutic treatments but lacked the money that was needed to supply the labor for the buildings.

The first unit completed includes a large hydrotherapeutic building containing the most modern equipment for the treatment of infantile paralysis and other diseases of crippled children. The building, of native stone, includes two swimming pools, each 24 by 36 feet, arranged so that either may be disconnected in the interest of economy. It has accommodations for 200 patients.

(To be continued)

Rural Medical Service

NOTE.—*This is the seventeenth of a series of articles on Rural Medical Service, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

It would require more than superhuman foresight and mobility if physicians and other medical service institutions were to anticipate or even to follow these movements so closely as to maintain uniformity of service in relation to need in all sections of the United States.

A study that was made in 1918, in preparation for war service of American physicians, makes it possible to check some features of the supply of physicians at that time as compared with the present study.[14] The counties having less than one physician to each 2,000 of population were listed. There were 123 such counties containing 702 physicians. Of these 123, however, only sixty-two were included in the 297 counties which in 1934 had the same ratio of physicians to population. As has already been noted, this 297 in 1934 declined to 231 in 1936. It would appear from these figures that, while there was a decided increase in the number of counties with insufficient physicians between 1918 and 1934, these counties were constantly changing and, as has also been noted, this increase in the number of such counties apparently began to decline in about 1934.

The existence of cyclic trends in the rate of growth of the medical profession has been mentioned. One period of rapid increase seems to have reached a high point about 1900, when after a slight pause population increased faster than physicians until 1929, when there are indications that the trend is again being reversed.

Other tendencies also are changing. There are many indications that we are starting on another cyclic trend toward greater emphasis on the art of medicine. Several medical colleges are revising their methods of teaching with the avowed objective of training more and better rural phy-

14. The War Service of the Medical Profession, J. A. M. A. **70**: 1646 (June 1) 1918.

sicians and of directing their graduates to rural locations. Nearly every state medical association is devoting increased attention to graduate education for rural physicians.[15]

The facts stated in this study would seem to refute the constantly repeated charge that physicians refuse to go into rural districts, where their services are most needed but where financial returns may be less than in the cities. The 297 counties that had more than 2,000 population per physician in 1934 are "marginal" counties in regard to resources and opportunity for physicians. Yet in the two years 1934-1936, ninety more physicians moved into these counties than left or died. This increase of 4.2 per cent in the number of physicians in these counties is twice the rate of increase in total physicians of the United States.

The fact that the 1936 Medical Directory recorded 13,157 new names and 70,000 changes of address, of which 28,629 were removals from one city to another, gives a rather vivid picture of the great "fluidity" of the supply of physicians in the United States and furnishes ample proof that every locality that might be in need of the services of a physician is frequently and carefully investigated.

(To be continued)

15. McLester, J. S.: Proc. Am. Cong. M. Ed., M. Licensure & Hospitals, 1931, p. 68.

The Home of the American Medical Association

NOTE.—*This is the seventeenth of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

BUREAU OF MEDICAL ECONOMICS

The Bureau of Medical Economics was created in 1931 in accordance with the terms of a resolution adopted in 1930 by the House of Delegates at the Detroit session. Dr. R. G. Leland, Assistant Director of the Bureau of Health and Public Instruction at that time, was made Director of the new Bureau.

R. G. Leland, M.D., director of the Bureau of Medical Economics, in conference with Miss Dorothy Pechman.

The Bureau of Medical Economics studies those phases of general economics which have a bearing on the practice of medicine and collects, tabulates, studies, criticizes and prepares for publication data and information pertaining to the methods of distributing medical services. The Bureau endeavors to secure from state and county medical societies and from many other medical and nonmedical organizations current data concerning new forms of medical practice.

The Bureau has made special investigations in the fields of the cost of medical education, income from medical practice, medical relations under workmen's compensation, sickness insurance, the distribution of physicians, care of the indigent sick, medical society plans, the collection of medical fees, university and college student health service, group medical practice, group hospitalization, and rural medical service.

The Bureau has endeavored to set forth some of the principles of medical economics in its publications entitled "An Introduction to Medical Economics" and "Economics and the Ethics of Medicine." The publication "Outline for Course in Medical Economics" contains suggestions on the subjects that should be included in the teaching of medical economics to medical students.

The Bureau of Medical Economics research and clerical staff. Mr. J. D. Laux and Mr. A. M. Simons in right foreground.

An increasingly large amount of information is being assembled on many other subjects. These include cooperatives and medical service, mutual benefit associations, sickness financing corporations, care and relief of physicians and their dependents, medical service plans of the Rural Resettlement Administration, state medicine, financial records for physicians, and insurance medical directories.

The Bureau maintains an alphabetical master index file of more than 3,300 organizations interested in or dealing with some phase of medical practice. Of this number more than 800 are classified as contract practice schemes, group hospitalization plans and county medical society plans, more than 200 as insurance companies which sell contracts for health and accident, life, hospital expense only, liability or malpractice coverage, more than 1,200 collection agencies, nearly 300 universities and colleges maintaining student health services, about forty sickness financing corporations, thirty foundations, more than 700 medical practice groups, and a number of mutual benefit associations and other miscellaneous organizations. This list is also arranged numerically and geographically.

The source material of the Bureau is cross-indexed and arranged according to a special subject code. Card indexes are also kept by subject and author. This code is also used for the correspondence file.

Every letter that the Bureau receives or sends out is recorded on an individual or organization correspondence index file card, which bears the date and the subject code. Clippings from newspapers and from magazines are filed by the same subject index code as other source material.

The Bureau assists state and county medical societies, individual physicians and nonmedical organizations and individuals by offering criticisms of proposed medical service plans, opinions on many subjects pertaining to medical economics, and by directing attention to published reports or actions of the House of Delegates.

In addition to Dr. Rosco G. Leland, the Director, the Bureau personnel at present consists of Mr. A. M. Simons and Mr. J. D. Laux, research assistants, a secretary, and six stenographers and typists.

(To be continued)

Official Notes

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:
April 26-27—Louisiana State Medical Society, Monroe.
May 4—Irving Park Woman's Club, Chicago.
May 7—Rogers Park Congregational Church, Mayflower Circle, Chicago.
May 12—Lutheran Hospital Auxiliary, Moline, Ill.
May 12—Augustana College, Rock Island, Ill.

DR. FRANK J. CLANCY:
April 29—Y. W. C. A., Grand Rapids, Mich.

DR. CHARLES GORDON HEYD:
April 27—New Jersey Medical Society, Atlantic City.
April 28—Polyclinic Medical School and Hospital, Annual Banquet, New York City.
April 29—Cornell Medical School Alumni Society, New York City.
May 3—Hartford (Conn.) Medical Society.
May 5—Meeting of Organized Medical and Dental Professions, New York City.
May 11—Texas Medical Association, Fort Worth.
May 12—Nebraska State Medical Association, Omaha.
May 13-14—Iowa State Medical Society, Sioux City.
May 15—Medico-Surgical Society of New York.

DR. R. G. LELAND:
April 26—Columbus (Ohio) Academy of Medicine.
April 29-30—Fifteenth Annual Conference of the Milbank Memorial Fund, New York Academy of Medicine, New York City.
May 6—American Association of Industrial Physicians and Surgeons, Detroit.

DR. PAUL A. TESCHNER:
May 4—Lions Club, Des Plaines, Ill.
May 6—Public Health Nurses, Oak Park District.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title Your Health. The topics and speakers for the next three programs are:

April 27. Keeping Your Baby Well, W. W. Bauer, M.D.
May 4. Healthy Mothers, W. W. Bauer, M.D.
May 11. Hospitals of Today, Morris Fishbein, M.D.

The time of the broadcast is Tuesday afternoon at 3 o'clock central standard time (4 o'clock eastern time, 2 o'clock mountain time, 1 o'clock Pacific time).

MEDICAL EXHIBITS

April 26—Bronx County Better Health Week, New York. Exhibits on nutrition and the prevention of accidents.

April 28-29—Ohio State Medical Association, Dayton. Exhibits on syphilis and on the activities of the American Medical Association, including the Councils on Physical Therapy, Foods, and Pharmacy and Chemistry.

April 29—All School Health Review, Joliet Township High School and Junior College, Joliet. Exhibits on "patent" medicines and quackery and objectionable cosmetics.

May 2-5—Minnesota State Medical Society, St. Paul. Exhibits on objectionable obesity cures, mechanical nostrums, medical economics, syphilis, posture, and health information for the public by the physician.

May 4-6—Kansas State Medical Society, Topeka. Exhibits on what the public is thinking about health, allergic asphyxia, and food fads.

May 5-7—Tri-State Hospital Assembly, Chicago. Exhibit on hospital material.

Medical Legislation

Medical Bills in Congress

Changes in Status.—Hearings were held before the House Committee on Military Affairs, April 20, on H. R. 4415, proposing, among other things, to permit the Bureau of Mines to sell to citizens of the United States or to corporations, under regulations approved by the President, any helium, not needed by the government, that is produced in plants operated by the government or under lease or contract with it, for the production of helium. H. R. 168 has been reported to the Senate with recommendation that it pass, proposing to authorize an increase in the annual appropriation for books for the adult blind.

Bills Introduced.—H. R. 6359, introduced by Representative Bernard, Minnesota, proposes to regulate traffic in surgical ligatures and sutures. The bill proposes that surgical ligatures and sutures, to be salable in the District of Columbia or in interstate and foreign commerce, must be prepared at an establishment holding an unsuspended and unrevoked license issued by the Secretary of the Treasury and that the container must be plainly marked with the proper name of the article, the name, address and license number of the manufacturer, and the date beyond which the contents cannot be expected beyond reasonable doubt to yield their specific results. H. R. 6380, introduced by Representative Atkinson, Tennessee, proposes, among other things, to direct the Administrator of Veterans' Affairs to furnish outpatient pneumothorax therapy, insulin and/or liver extract to veterans requiring such treatment or medication notwithstanding that the disease necessitating the treatment may not be directly or presumptively service connected. H. R. 6385, introduced by Representative Doughton, North Carolina, proposes to impose an excise tax on every person who imports, manufactures, produces, compounds, sells, deals in, dispenses, prescribes, administers or gives away marihuana. The bill proposes an excise tax of $1 a year on physicians, dentists, veterinary surgeons and other practitioners who distribute, dispense, give away, administer or prescribe marihuana to patients on whom they, in the course of professional practice, are in attendance. Physicians, dentists, veterinary surgeons or other practitioners are to be required to keep a record of all marihuana dispensed to a patient, showing the amount transferred and the name and address of the patient. This record must be kept for a period of two years. The bill provides that every person liable to any tax imposed by it shall keep such books and records, render under oath such statements, make such returns and comply with such rules and regulations as the Secretary of the Treasury may from time to time prescribe. H. R. 6395, introduced by Representative Tinkham, Massachusetts, proposes to direct the Administrator of Veterans' Affairs to pay a pension to each person who served the United States as an acting assistant surgeon or contract surgeon during the war with Spain, including the Philippine insurrection and the Boxer rebellion. H. R. 6442, introduced by Representative Boehne, Indiana, proposes to amend the Social Security Act to include, so far as old age benefits are concerned, employees of organizations organized for religious, charitable and like purposes.

Alabama

Bill Enacted.—S. 54-XX has been enacted as Laws, 1936, Governor's No. 153. This law requires the governor to appoint a board of medical technician examiners, to consist of three medical technicians, one physician and one physician-pathologist. This board is to examine and license persons as "registered medical technicians." No person, other than one examined and registered by the board, may designate himself or herself as a "registered medical technician." No person is to practice as a medical technician except under the immediate direction of a qualified doctor of medicine. A "medical technician," within the meaning of the act, is "a person who is engaged in the practice of standardized or experimental technical procedures, the results of which are interpreted by the physician in the diagnosis of diseases."

Delaware

Bill Passed.—S. 63, to amend the medical practice act in the particulars noted in THE JOURNAL, March 13, page 86B, has passed the senate. In the house an amendment has been offered which, if enacted into law, will, in effect, permit licensed osteopaths to practice medicine and surgery without restriction. This amendment would define osteopathy as "the practice of the healing art in all its branches."

District of Columbia

Bill Introduced.—H. R. 6331, introduced by Representative Norton, New Jersey, proposes to provide for the issuance of a license to practice the healing art in the District of Columbia to Dr. E. King Morgan.

Changes in Status.—H. R. 4876, H. R. 4982 and H. R. 5142 have passed the House, providing, respectively, for the issuance of licenses to practice the healing art in the District of Columbia to Dr. Frederick W. Didier, Dr. William Justin Olds and Dr. William Hollister.

Florida

Bills Introduced.—S. 46 proposes to authorize the state board of health to purchase salvarsan, neosalvarsan, arsphenamine, neoarsphenamine and sulfarsphenamine for distribution to the physicians of persons suffering from syphilis or kindred diseases and financially unable to purchase such drugs. S. 153, to amend the medical practice act, proposes (1) to require an applicant, among other things, to be a citizen of the United States; (2) to make it the specific duty of all sheriffs, constables, their deputies, all police officers, all peace officers, all prosecuting attorneys, and the state board of health and its officers, agents and inspectors to enforce the provisions of the act, and (3) to elaborate greatly on the definition of what constitutes the practice of medicine. S. 135 and H. 176, to amend the chiropractic practice act, propose, among other things, to provide that "any chiropractor who has complied with the provisions of this Act may adjust three hundred or more articulations of the body and all structures adjacent thereto, including the use of X-Ray for diagnosis, but shall not prescribe or administer to any person any medicine or drug included in materia medica, perform any surgery, except as hereinabove stated, nor practice obstetrics." H. 197 proposes to prohibit the retail sale or distribution of amytal, luminal, veronal, barbital, trional, sulfonal, tetronal, paraldehyde, chloral or chloral hydrate, or cannabis, except on the written prescription of a licensed physician, dentist or veterinarian.

Idaho

Bill Enacted.—S. 172 has been approved by the governor, proposing so to amend the chiropractic practice act as (1) to require the commissioner of law enforcement to appoint a board of chiropractic examiners to assist the department of law enforcement in examining and licensing applicants, in establishing rules and regulations with respect to acceptable pre-

liminary education and accredited schools and in conducting hearings of revocation or suspension proceedings; (2) to provide that any licensed chiropractor may "adjust any displaced segment of the vertebral column or any displaced tissue of any kind or nature, for the purpose of removing occlusion of nerve stimulus in the bodies of human beings, and practice physiotherapy, electrotherapy, hydrotherapy, as taught in Chiropractic Schools and Colleges, but nothing herein contained shall allow any licentiate to prescribe medicine, perform surgical operations or practice obstetrics," and (3) to make it a misdemeanor for a chiropractic licentiate to fail "to put after his name one of the following designations: Chiropractor, Doctor of Chiropractic, Philosopher of Chiropractic, or Chiropractic Physician, on any sign, printed material, or other advertising."

Illinois

Bill Introduced.—S. 297 proposes to prohibit the sale of eyeglasses or spectacles intended for the correction of defects and abnormal conditions of the human vision, except on the prescription of a licensed physician and surgeon or of a licensed optometrist.

Pennsylvania

Bills Introduced.—S. 859 proposes that, whenever it is relevant to the prosecution or to the defense in an illegitimacy action, the trial court may direct the complainant, her child and the defendant to submit to one or more blood tests to determine whether or not the defendant can be excluded as being the father of the child. The result of the test is to be receivable in evidence only in cases in which definite exclusion is established. H. 1982 proposes to authorize the state department of health to arrange for hospital or institutional care for indigent typhoid carriers.

Wisconsin

Bills Introduced.—A. 661 proposes to create an interim committee on the cost of medical care to consist of two senators and three assemblymen. This committee is to investigate the general subject of the cost of medical care and the ways and means of lightening the burden thereof and is to have authority to inquire into such phases of the general subject of the cost of medical care as it may deem advisable to investigate. A. 662 proposes to exempt from the provisions of the insurance laws of the state nonprofit corporations organized for the purpose of establishing, maintaining and operating nonprofit hospital service plans whereby hospital care may be provided by such corporations, or by hospitals, public or otherwise, with which such corporations have contracts for such of the public as become subscribers to said plans under contracts which entitle each subscriber to certain hospital care. A. 747 proposes that "the common council or board of any city, town, village or county or any combination of such political subdivisions, may subsidize wholly or partially a physician or physicians, whenever there shall be an insufficient number of competent physicians in their respective communities. . . . Such physicians shall work under the direction and rules of the common council or boards affected." A. 748 proposes to authorize "the county board of any two or more counties (to) appropriate money for the purpose of constructing, equipping, operating and maintaining a county hospital, and to employ physicians or surgeons, dentists, nurses or other help necessary to the operation and maintenance thereof, and to provide such hospital care, dental or medical treatment to any residents of such county." A. 720, to amend the medical practice act, proposes to provide "that a person licensed to practice chiropractic in this state and holds [sic] the degree of Doctor of Chiropractic may use the title of 'Doctor of Chiropractic' or 'D.C.'" A. 740 proposes to make it the duty of the county board of supervisors of every county to provide, through established agencies now existing in said counties, medical, dental and hospital care and treatment for all poor persons receiving relief in said county, and to set up and establish and set aside such funds as may be necessary to preserve the health of such persons.

Woman's Auxiliary

Arkansas

The Woman's Auxiliary to the Ouachita County Medical Society met at Camden and the Auxiliary to the Ninth Councilor District Medical Society met at Harrison for their regular social and business meetings. The Woman's Auxiliary to the Pulaski County Medical Society and the Independence County Auxiliary also held social meetings recently. The Sebastian County Auxiliary voted to place *Hygeia* in the larger reading rooms of its county and the Garland County Auxiliary reported that *Hygeia* had been placed in its rural county schools. The origin of the Tuberculosis Seal and the life of Jane Todd Crawford were the subjects discussed at the last meeting of the Garland County Auxiliary.

The Washington County Auxiliary has prepared supplies for the City Hospital. At the last meeting a report was given on the medical work among the lepers of the Orient. The Bowie and Miller county auxiliaries held their last meeting at the home of Mrs. H. E. Murry, chairman of press and publicity of the Arkansas auxiliary, at Texarkana. One of the members gave valuable information on health insurance. Dr. Frances Spinka was speaker. Mrs. J. T. McLain, president of the Arkansas Auxiliary, spoke at the February meeting of the Sebastian County Auxiliary. Mrs. McLain discussed the objectives of the auxiliary, telling how members can strengthen the work of the organization, promote the adoption of health measures and cooperate in the movement for periodic health examinations and in Cancer Control.

Plans are being made for the annual meeting of the Arkansas Auxiliary, which will be held at Little Rock, April 12-14.

Louisiana

The Caddo Parish Auxiliary held a meeting in Shreveport recently in honor of the state president, Mrs. James Byron Vaughan. The sale of tuberculosis seals for preventorium work amounted to $194.19. During this campaign, fourteen speakers were heard before forty-three parent-teacher groups and students.

The Orleans Parish Auxiliary held its regular meeting and reception at the Orleans Club January 13, at which time Dr. Urban Maes discussed appendicitis.

The Ouachita Parish Auxiliary held its regular social and program meeting in February. One of the members spoke on the "Romance of Medical Men of the South." Plans were made for the state convention, which will be held in Monroe on April 26 and 27, at which time the members of the Ouachita Auxiliary will be hostesses.

Missouri

The thirteenth annual meeting of the Woman's Auxiliary to the Missouri State Medical Association will be held at Cape Girardeau May 11-12.

Mrs. David S. Long, Harrisonville, first vice president of the Woman's Auxiliary to the American Medical Association, has been chosen Missouri state commander of the Woman's Field Army of the American Society for the Control of Cancer. Mrs. C. S. Capell, Kansas City, is commander of the Woman's Field Army of the second district. In March, a public meeting was held in the auditorium of the Kansas City University.

A "health day" program was featured at the regular monthly meeting of the Woman's Auxiliary to the St. Louis Medical Society. Dr. Harriet Cory spoke on "High Lights of Social Hygiene."

New Jersey

Governor Harold G. Hoffman spoke, March 11, at a tea sponsored by the Woman's Auxiliary to the Mercer County Medical Society. Mrs. C. Chester Chianese, president, was in charge. The governor stated his belief that the best aid that can be given a person is to encourage him to help himself as much as possible but that assistance should be given the unfortunate wherever it is needed and merited. He urged residents of New Jersey to show their loyalty by endeavoring to understand and be proud of the advantages of New Jersey and the achievements of its people and to be optimistic in their views as citizens of New Jersey. He stated that progress comes as much from the people in the ranks as from the efforts of the leaders, when teamwork, loyalty, energy and persistence are evident in the citizens.

South Carolina

The twelfth annual convention of the Woman's Auxiliary to the South Carolina Medical Association convened in Columbia April 13-15. Mrs. W. C. Abel, president of the Columbia Auxiliary, was convention chairman. For the first time the auxiliary sponsored an exhibit of antique medical instruments, old texts and saddle bags that were used by pioneer physicians in South Carolina.

The Ridge Medical Auxiliary, comprising three counties, had "listening in" parties for the radio broadcast of the Your Health program of the American Medical Association and National Broadcasting Company, February 23. On this program Dr. Paul A. Teschner spoke on "First Aid for Broken Bones."

The American Medical Association was previously informed of these "listening in" parties and sent 100 posters announcing the programs. These posters were distributed and the programs given by the physicians were announced at public gatherings.

The York County Auxiliary is preparing the histories of all York County physicians who are deceased. At the last meeting a program on numerous phases of health and hygiene was presented by one of the members, who compiled an informative set of questions and answers from the February issue of *Hygeia.*

Medical Economic Abstracts

HEALTH INSURANCE IN BRITISH COLUMBIA

The story of the rejection of the British Columbia scheme of health insurance by the physicians and its consequent postponement by the government should be of help to the medical profession in the United States, especially in those localities where similar legislation is proposed.

Agitation for such insurance began to take form when a royal commission on state health insurance and maternity benefits was appointed in April 1929. The final report of the commission, published in 1932, recommended "suitable compulsory health insurance, including maternity benefits." The British Columbia Medical Association and the Canadian Medical Association laid down the principles that they felt should be included in such a law; assuming the acceptance of these principles, a majority of the members of the British Columbia Association in 1934 stated that they would approve a plan. In 1935 a plan was proposed by a provincial committee, which included all these principles and was generally accepted. When the time came for enactment, it was discovered that the government refused to assume any financial responsibility or to appropriate any money for the care of the indigent and the low income classes.

A committee of the College of Physicians and Surgeons of British Columbia attended the hearings on the bill but soon became convinced that the government had no intention of enacting a law that would include provisions designed to care for the most needy and to safeguard good medical service; these forebodings were confirmed when the bill finally took form in law.

The organized physicians offered five objections to the law: (1) It contained no provisions for the indigent and the lowest income classes most in need of help; (2) it contained no provisions for hospitalization; (3) it was indefinite as to the illnesses covered and the services furnished; (4) the payment provided for physicians was so inadequate as to render good service impossible, and (5) the tendency of the entire bill would be to lower medical standards.

Opportunity was given for thorough consideration of these objections and of the law as a whole, and then the 635 members of the College of Physicians and Surgeons of British Columbia were questioned as to whether they were willing to serve under the law. As has already been reported in THE JOURNAL, votes were received from 632, of whom 619 voted against the plan and thirteen in favor. Since it was manifestly impossible to introduce any system of sickness insurance against such a united front of the physicians, the premier issued instructions to postpone operation of the law.

No definite program of action for the future has as yet been decided on. One proposal is that the government will move for amendments to meet the objections of the physicians, and another is to call for a referendum before any further legislative action is taken.

MORBIDITY UNDER GERMAN SICKNESS INSURANCE

The statistics of morbidity among the insured in Germany for the years 1931 to 1935 inclusive, in the *Deutsches Aerzteblatt* (67: 115 [Jan. 23] 1937), show that the number of cases of illness per insured member increased 31.2 per cent in this five year period. The increase was constant from 1.41 illnesses per insured member in 1931 to 1.85 in 1935. The number of illnesses per dependent in insured families increased 55 per cent in the same period—from 0.60 per individual in 1931 to 0.93 in 1935. The Committee on the Costs of Medical Care found an average of 0.84 illness per person in the United States. The number of illnesses among adults in the United States, which is more comparable to insured persons in Germany, varied from 0.58 to 0.75, while the rate for children under 5 years was 1.32 illnesses a year. Insured Germans receive cash benefits when sick, dependents do not, which may help account for the otherwise peculiar features of these figures.

ORGANIZATION SECTION

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GROUP HOSPITALIZATION

NOTE.—*This is the second of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

In certain states the compensation laws permitted the formation of associations to provide medical and hospital care for employees entitled to compensation and authorized payroll deductions from employees. Such associations almost surreptitiously added medical care and hospitalization for noncompensable injuries and illnesses and brought a loosely constructed organization into the medical and hospital fields. In other states the laws permitted the expansion of medical services provided by employers to care for noncompensable as well as compensable conditions, but most state laws stipulated that employers alone should pay for compensation claims. To provide the medical and hospital services, employers expanded their industrial health services, used subsidized or company-owned hospitals, and formed contracts with physicians, hospitals, and medical and hospital benefit associations—generally with the expectation of lowering accident costs or of securing more favorable personnel relations with employees.

Much dispute and ill feeling has arisen because of the failure to differentiate between industrial health services and medical service systems. Industrial health services are maintained entirely at the expense of the employer to fulfil his responsibility, sometimes as a "self insurer," for industrial injuries. The objectives are to safeguard employees against accidents and to provide prompt medical supervision (first aid) for the prevention of serious complications from minor accidents. Under medical service systems the employees and their dependents, in consideration for a fixed periodic deduction from wages, are furnished medical and hospital care through medical personnel employed by or under contract to the employer. Industrial health services are extended to provide care for acute and chronic illnesses and more or less complete medical care for the employee's family.

The creation of medical service systems to furnish complete medical, surgical and hospital care for employees does not seem to be the proper function of industry. Financial provisions may be made by industry to alleviate the lack of individual employee income, but the medical and hospital service should be given by physicians and hospitals independent of industry. Under such an arrangement the employer could help employees to purchase medical and hospital services without undesirble entanglements in the medical field. It is believed that personnel managers would welcome an arrangement for medical services which does not place their companies between the patient and his physician or hospital.

There is need for much further consideration of the discrimination against independent physicians and hospitals and of the inequities placed on the employee by industrial medical systems.[1] At present it is sufficient to note that, in certain industries, employees and their dependents receive medical and hospital care (part of which is definitely the legal liability of the employer), under a group payment plan, from physicians employed in company-owned hos-

1. For a full discussion of the evolution of industrial medical services see (*a*) Medical Relations under Workmen's Compensation—Revised, Bureau of Medical Economics, American Medical Association, Chicago, American Medical Association, 1935. (*b*) Williams, Pierce: The Purchase of Medical Care Through Fixed Periodic Payment, New York, National Bureau of Economic Research, Inc., 1932. (*c*) Dodd, W. F.: Administration of Workmen's Compensation, New York, Commonwealth Fund, 1936; (*d*) Medical Supervision and Service in Industry, New York, National Industrial Conference Board, Inc., 1931.

pitals or from physicians and hospitals under contract with the employer.

It was not long before medical and hospital benefit organizations were formed in imitation of the associations contracting for the care of patients entitled to compensation. Under the various plans, funds were accumulated from individual subscribers as well as from groups of employees through the sale of contracts. Complete medical and hospital services were offered through hospitals and clinics owned by the organizers or through physicians and hospitals under contract with the corporation. In the states where the laws or the courts denied corporations the right to practice medicine, these organizations made little progress; but in those states in which the laws did not restrict such corporations they were promoted at a pace that would astound even a firm believer in the gullibility of the American people. In one state alone 143 such organizations were formed, thirty-seven of which used two or more names. Many of these corporations (some of which appeared to be only on paper) defrauded thousands of people of money which they thought they were paying for future medical services until grand jury action was secured and the laws were altered to prohibit such swindling corporations. In other localities similar organizations were more honestly promoted, but, while avoiding criminal fraudulence, they still retained the contract features restricting free choice and preventing freedom of reasonable competition on a service basis.[2]

Many mutual benefit associations or sick benefit funds organized by employees, trade unions and fraternal societies developed alongside the industrial health services and medical systems. The primary function of these plans was to collect payments from the group into a fund to provide benefits in cash for members requiring assistance. These organizations, after the losses from industrial injuries were transferred to the employer, confined themselves to ordinary sicknesses or injuries not the result of employment. In addition to cash benefits for loss of time, several of the plans included payments for medical and hospital care. Only a few plans provided such service "in kind" through salaried physicians and association-owned hospitals or through physicians and hospitals under contract with the association. Most of the plans also included medical and hospital service for dependents of members. By far the greater number of these plans were little more than charity arrangements in that they were designed primarily to aid the member who became impoverished because of illness or accident.[3]

Group medical practice plans or so-called private group clinics, whereby physicians cooperate in their practice, share office space, own certain kinds of equipment and employ lay assistants in common, are frequently cited as examples of desirable group payment arrangements. A comprehensive study of such groups,[4] however, revealed that less than 9 per cent (twenty out of 224) had ever tried any arrangement for service in return for regular periodic payments. Furthermore, despite the claimed economies of group medical practice plans, it was found that the cost of practicing medicine in private practice varies from 27 to 34 per cent of gross income, with an average tendency of 33 per cent, whereas in group medical practice the cost varies from 40 to 42 per cent, or from 7 to 9 per cent more than in private practice.

A few communities organized "health associations" to provide hospitalization and medical or nursing services to subscribing members. While such organizations have usually been subsidized by foundations, welfare federations or other community institutions, the essential distinction is that the administration is separate from the physicians and hospitals providing the service. Such arrangements did not lend themselves to the average American community because of their dependence on community or special benevolent funds and the restricted character of their activities.[5]

In universities and colleges, student health services were organized to meet the requirements of supervising and protecting the health of students on the campus through entrance examinations, consultations and infirmary care, instruction in personal and public hygiene, and the control of communicable diseases. Such organizations might be compared to industrial health services with particular emphasis on health education. The tendency to extend student health services into comprehensive medical care plans is similar to that which exists under industrial health services. Again, the claimed economies of group arrangements do not seem to materialize because, in spite of uncertain accounting methods, the reported cost per student is not appreciably less than the cost

2. These organizations are discussed in New Forms of Medical Practice, Bureau of Medical Economics, American Medical Association, Chicago, American Medical Association, 1933, pp. 61-64. Leland, R. G.: Contract Practice, J. A. M. A. **98**: 808 (March 5) 1932; Some Phases of Contract Practice, A. M. A. Bull. **27**: 142 (Oct.) 1932. New Plans of Medical Service, Chicago, Julius Rosenwald Fund, 1936

3. Medical benefits under mutual and sick benefit associations are discussed by Brundage, D. K.: A Survey of Work of Employees' Mutual Benefit Associations, Pub. Health Rep. **46**: 2102 (Sept. 4) 1931. Williams,[1b] chapter XII.

4. Group Practice, Bureau of Medical Economics, American Medical Association, Chicago, American Medical Association, 1933, p. 29. Compare with Rorem, C. R.: Private Group Clinics, Committee on the Costs of Medical Care, Publication 8, Chicago, University of Chicago Press, 1931.

5. Williams,[1b] chapter X. Peebles and McDermott: Nursing Service and Insurance for Medical Care in Brattleboro, Vermont, Committee on the Costs of Medical Care, Publication 17, Chicago, University of Chicago Press, 1932. Falk, Griswold and Spicer: A Community Medical Service Organized under Industrial Auspices in Roanoke Rapids, North Carolina, Committee on the Costs of Medical Care, Publication 20, Chicago, University of Chicago Press, 1932.

for similar services in the private purchase of medical and hospital care.[6]

It should be noted that all of the several plans which have been outlined have provisions for periodic payments by members to establish a fund for hospital, and sometimes medical, bills. Nevertheless, such plans are not group hospitalization plans. The characteristics which set group hospitalization plans apart from these plans will be outlined later.

THE BEGINNINGS OF HOSPITAL PLANS

With the background of industrially dominated group payment for medical and hospital care, it is not surprising that hospitals should form plans to accumulate funds through individual contributions and then through group payroll deductions.

In the latter part of the nineteenth century hospitals began selling "season tickets," entitling the purchaser to hospital benefits in case of accident or illness, as a means of securing advance working capital. The practice started, presumably, in the small hospitals of Michigan for workers in the lumber woods, although some hospitals in cities, such as the Broadstreet Hospital in New York City, were supported by annual pledges of employees and employers.

The first organized payment plan for hospital services offered to the general public by a hospital was that of the Grinnell Community Hospital, Grinnell, Iowa, which began operation in 1918. Subscription rates were $8 a year for single persons and $12 for husband and wife, with $5 for the first child and $2.50 for each additional child. Later, students of Grinnell College were admitted for $5 per college year. The benefits included three weeks of hospital care consisting of board and room and floor nursing service but did not include use of operating room, delivery room, x-ray or laboratory fees, or the costs of dressings or special nursing. This plan is still in operation and has remained practically unchanged in rates, contract provisions or size of membership.

Many other plans for facilitating the purchase of hospital care were organized, such as the Hospital Service Association of Rockford, Ill., in 1912, the Thompson Benefit Association for Hospital Service, Brattleboro, Vt., in 1927, and the New Bedford Health Association, New Bedford, Mass., in 1929. These undertakings were community ventures to carry the risk of illness on a group basis but with the provision of hospital and medical service left largely to independent local agencies.

Alongside the organized undertakings, individual hospitals formed a multitude of other plans designed to bolster the diminishing income from patients, gifts and endowments and at the same time to make hospitalization costs less for patients of moderate means. A few of these plans will be indicated.

(To be continued)

6. University and College Student Health Services, Bureau of Medical Economics, American Medical Association, Chicago, American Medical Association, 1936. Compare with Griswold and Spicer: University Student Health Services, Committee on the Cost of Medical Care, Publication 19, Chicago, University of Chicago Press, 1932.

Works Progress Administration Activities

NOTE.—*The article on the Medical Activities of the Works Progress Administration, which was published serially in the Organization Section of* THE JOURNAL *from February 20 until April 17, 1937, inclusive, was prepared by Florence A. Carpenter of 1801 Sixteenth Street N.W., Washington, D. C.*

Another such hospital was built at Knoxville, Tenn., sponsored by Knox County, the American Legion and the Shrine. The land for the site was contributed by the Fort Sanders Hospital, the facilities of which are available in emergencies to the Crippled Children's Hospital. It is equipped with the latest scientific apparatus for the treatment of crippled children, including a therapeutic swimming pool, the water supply for which is similar to that at the famous Warm Springs, Ga. It includes a violet ray room.

Another new hospital for crippled children was constructed with the aid of WPA labor in Pima County, near Tucson, Ariz. Three separate units of the hospital were planned, the largest having 10,135 square feet of floor space. It is built of adobe brick and contains a large swimming pool, the water supply for which has the buoyant properties necessary in the treatment of crippled children.

Extensive alterations were made on the buildings and to the grounds of the New York State Reconstruction Home at Haverstraw, which houses 400 crippled children patients. Among other things, a modern playground was constructed.

Several new tuberculosis treatment hospitals were constructed by the WPA and the facilities of a number of others were increased or modernized or both. At Washington, D. C., several projects of the WPA, sponsored by District of Columbia health organizations, are intended to increase facilities for tuberculous patients. The first project completed was the reconstruction of an old building at Gallinger Hospital, a municipal institution, for the exclusive treatment of tuberculous patients. A project well under way is the construction on Bald Eagle Hill, overlooking the Potomac River, of a hospital for the treatment of tuberculous children who have the disease in a curable form.

Separate dormitories are being erected with a capacity of 125 patients.

Lucas County, Ohio, and its county seat, Toledo, had been getting along with a tuberculosis hospital with accommodations, much crowded, for 100 patients, and many on its waiting list. WPA labor made possible the construction of the William W. Roche Memorial Hospital, exclusively for the treatment of tuberculous patients. The building is shaped in the form of a huge Y so as to give all possible exposure to sunlight and has been designed in such a way that its 275 patients may be segregated by age, sex and degree of infection.

A new tuberculosis hospital was provided at Lamar, for patients of Prowers County, Colo. It was built of native red sandstone, which was quarried by the WPA workers at a site about 10 miles distant from the hospital. It provides facilities for forty patients. Another creation of new facilities for tuberculous patients was at Monroe, La., where separate two-story buildings provide for the segregation of the fifty white and Negro patients.

Sea View Hospital, New York City's largest institution for the treatment of tuberculous patients, with a bed capacity of 1,700, was completely modernized as the result of a WPA project.

An abandoned transient camp on Wildcat Mountain, near Fort Smith, Ark., was remodeled and expanded to make a tuberculosis sanatorium capable of handling 600 patients.

The mentally defective and the insane in public institutions, usually state operated, were the beneficiaries of many humanitarian projects of the WPA designed to give increased facilities, to modernize and to enable some of them for the first time in years to give adequate treatment to all committed to their care.

Thirteen WPA projects enabled the Eloise County Infirmary and Hospital in Michigan to modernize its plant completely for the care of 3,400 patients in the psychopathic wards and 3,800 in the infirmary. The modernization included the hospital equipment, the farm buildings and the grounds. Wayne County contributed $60,000 toward a total cost of about $250,000 for the projects.

Conditions had been so bad at the Arkansas State Hospital for Nervous Diseases that 365 Negro patients were transferred in 1933 to an abandoned building of the state penitentiary, where there was no means of segregating the violent patients. No repairs had been made on the Nervous Diseases Hospital since 1914. WPA projects here will make possible the completion of modern facilities for 3,800 patients.

Only children between the ages of 6 and 16 are received into the Georgia Training School for Mental Defectives near Augusta, and, though it had capacity for 250 patients, it had a waiting list of 750. A WPA project increased the facilities by 100 beds. Fourteen buildings were remodeled.

One of the largest of the WPA hospital projects was that for construction of four additional buildings at the State Hospital for the Insane at Chattahoochee, Fla., which provided space for 976 beds, while another project of importance in the works program was construction of the Malcolm A. Bliss Psychopathic Institute, which is an addition to the City Hospital of St. Louis. This building will house 183 patients.

Statistics of the American Hospital Association show that approximately half of the 3,063 counties in the United States had no hospital facilities whatever in 1933 and in many cases were compelled to pay for the treatment of their charity patients in the hospitals of neighboring counties. Reports from the state administrators indicate that, in more than a few cases, WPA projects have provided hospital service where there was none before.

Tucumcari, N. M., which previously had been sending its patients to Amarillo, Texas, 125 miles away, got a new and modern hospital through a WPA project that is expected to meet the needs of the community for some years to come. Springerville, Ariz., which previously had been sending patients to Gallup, N. M., 125 miles away, to Phoenix, 245 miles distant, or to Albuquerque, 234 miles away, got a hospital through a WPA project. It is not a large one, being of only twelve rooms, but it will fill a long felt need.

Bolivar County, in Mississippi, is another that had never had public hospital facilities until the WPA gave a helping hand in the construction of one of the finest small hospitals in the state. Construction costs were about $15,000, of which the city of Rosedale contributed more than half.

The 700 Indians on the Yankton Sioux reservation near Wagner, S. D., now have hospital facilities for the first time as the result of a WPA project. Previously to the building of the hospital, reservation Indians needing hospital care were sent either to Winnebago or to Rosebud, both of which are more than 200 miles away.

Special hospital construction includes a new Hinds County Maternity Center at Jackson, Miss., erected with the aid of the WPA, the County Board of Supervisors having provided approximately half the funds. The Maternity Center was organized in 1931 by prominent residents of Jackson and had a somewhat precarious financial career until completion of the new building. Various hospital and social service groups send patients there, and the specialists of the city contribute their services so as to keep down costs.

The Eighth Corps Area of the United States Army, with headquarters at Fort Sam Houston,

Texas, got the benefit of an approximately $3,000,000 station hospital through the aid of the WPA and it now has one of the most modern of the military hospitals in the United States. Its capacity is something over 600 beds.

Residents of Brooklyn shortly will have the advantage of a new cancer clinic and research center, installed by the WPA in a remodeled old building owned by the department of hospitals. It will be one of the largest and most complete in the country devoted only to this kind of work.

At Kingston, N. Y., WPA workers completed the City Pathological Laboratory, a unit of the City Hospital; and a WPA project at the Lincoln Hospital, in New York City, permitted the opening of a night clinic for the treatment of venereal diseases at the rate of 1,000 patients a week.

(To be continued)

The Home of the American Medical Association

NOTE.—*This is the eighteenth of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

THE BUREAU OF EXHIBITS

The Bureau of Exhibits, located on the fourth floor, is one of the more recent additions to the headquarters group of the American Medical Association, although the work that it covers has been carried on for many years. Its duties are varied, dealing with the Scientific Exhibit at the annual session, with the exhibits of the Associa-

Thomas G. Hull, Ph.D., Director of The Bureau of Exhibits, with clerical staff.

tion at meetings of state medical societies and other scientific meetings, with exhibits for the public at fairs and expositions, and with information about motion pictures on medical and health education.

The Scientific Exhibit had its beginnings at the Columbus session of the American Medical Association in 1899, when the Indiana State Medical Society, under the guidance of Drs. William N. Wishard and Frank A. Wynne, presented an extensive collection of pathologic specimens. In 1900, at Atlantic City, the Section on Pathology was formed with Dr. Ludvig Hektoen as chairman, and for several years the pathologic exhibit was carried on as a function of that section. In 1903 Dr. Frank Billings, then President of the Association, became active in the interest of the exhibit and it was taken over by the House of Delegates and broadened in scope to include all phases of scientific medicine; hence the name Scientific Exhibit. Dr. Wynne continued to act as director until his retirement in 1916. The Board of Trustees assumed responsibility in 1920 and appointed a committee to prepare "plans for increasing the attractiveness of the Scientific Exhibit." Dr. D. Chester Brown and Dr. Frank Billings were members of the committee, and their influence was a stimulation to a better and better exhibition. Dr. Paul Nicholas Leech acted as director from 1922 to 1930, in addition to his other duties. Since 1930 Dr. Thomas G. Hull has been director on a full time basis. The work is carried on under close supervision of the Committee on Scientific Exhibit of the Board of Trustees, with the active cooperation of the Council on Scientific Assembly. Each

An exhibit depicting some of the work of the Bureau of Health and Public Instruction.

section appoints a representative to the Scientific Exhibit to assist in obtaining desirable exhibits and in coordinating the activities of the annual session. Each year from 175 to 225 exhibits are presented by from 400 to 600 individuals. Much excellent material is offered every year that cannot be used because of lack of space.

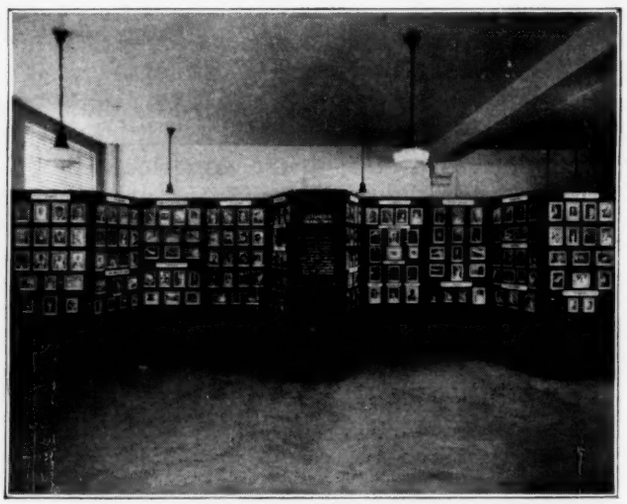
The Association exhibits depict the activities of various departments of the Association. Exhibits on some forty different subjects have been collected. They are sent to meetings of state medical associations or to other approved

An exhibit of dioramas dealing with certain outstanding medical discoveries.

scientific gatherings and to public assemblies, when the request is received from a state or county medical society or is approved by the local society. The Bureau of Health and Public Instruction cooperates with the Bureau of Exhibits in preparing exhibits shown to the public, especially at such undertakings as A Century of Progress Exposition in Chicago, the California-Pacific International Exposition in San Diego and the Texas Centennial Exposition in Dallas, and at many of the state fairs.

In 1929 an attempt was made to assemble at the headquarters building some of the better exhibits from the annual session, together with other material, under the name of the Central Scientific Exhibit. Because of lack of space for proper expansion and other difficulties inherent in such a program, the proposition was abandoned in 1934 as a headquarters activity and most of the material was moved to the Museum of Science and Industry in Chicago. Plans for a medical group in that institution are progressing, in which the American Medical Association is expected to have a part.

Motion pictures are in constant demand both for medical and for lay groups. There has been no attempt to build up an extensive film library, but rather to compile information concerning films and review certain pictures as occasion



"Cutaneous Granulomas," an exhibit of photographs collected by the Section on Dermatology and Syphilology.

demands. The Bureau of Health and Public Instruction has cooperated in preparing lists of sources of films for the public, while the Council on Physical Therapy has assisted in acquiring some noteworthy medical films.

(To be continued)

Rural Medical Service

NOTE.—*This is the eighteenth of a series of articles on Rural Medical Service, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

PROPOSED REMEDIES

There is no lack of proposals for improving rural medical service, but there is seldom any clear idea of what is to be improved. There is also a monotonous agreement that more physicians or hospitals per population would "solve the problem." The same remedy is prescribed for all sections, even though it is clearly evident that there are at least two quite different problems. In the "cut-over" regions, the "dust bowl" and the mountainous frontier, or thinly populated ranch sections, the dominant features are not ignorance and long continued poverty but more or less transient conditions, which will change in the future as they have in the past. Whether or not more physicians should enter these counties depends on future prospects as they develop.

Where extreme poverty and illiteracy have long dominated the picture, no one would claim that better homes would be provided by sending more building contractors and carpenters into the area or that more grocery stores would furnish additional food. Where only three or four persons per thousand made an income tax return there is little if any possibility of increasing medical services by redistributing the financial burden.

Such a situation seems to make unpractical the frequently urged schemes for local subsidies for physicians. In many of the counties included in this study such a large percentage of taxes are already so far in arrears as fully to demonstrate the impossibility of obtaining further funds from that source. A variation of this proposal is that state or federal subsidies should supplement local resources. Sometimes it is suggested that this subsidy should take the form of a salary for a part-time health officer. This plan is still so indefinite as to offer little basis for intelligent discussion. Some questions might be noted. How is the physician to be selected? What will be the extent of state or federal supervision? How will the physician's time be apportioned? With a system of county health departments where will the physician be located? What will be his official and competitive relations with physicians already in the locality? [16]

A local subsidy from tax funds is practicable only when the need for a physician is accompanied by ability to pay higher taxes. Even where these conditions are found, as in the widely publicized system in Saskatchewan and Manitoba, the results are not always wholly satisfactory.[17] Patients are permitted no choice of physician; there is difficulty in establishing and maintaining standards of selection in the first instance, and once a selection is made it is difficult to change.

These criticisms do not imply that some sort of subsidy to guarantee the support of a physician when needed and where local patronage will not be sufficient to maintain him may not sometimes be desirable. Such subsidies cannot be accepted as a panacea for all the weaknesses in rural medical service.

Another form of subsidy frequently proposed and attempted in numerous localities depends on the voluntary agreement of a number of residents to guarantee an annual income to a physician who will practice in a certain locality. Little can be said in opposition to the theory of such a plan, but it seems almost never to have succeeded in practice. Discussions of rural medicine mention numerous examples of such plans that were said to have been started during the past decade. Wherever the address of a subsidized physician was given an effort was made to ascertain the present status of the plan, but in no case was it possible to discover any such plan now in operation, although it is quite possible that some exist. One physician was located who had practiced under such a plan and he gave a very full report of its operation. Some extracts from his letter may give a better idea of the difficulties met than can be portrayed by a general discussion:

"With a clever amount of advertising a proposition of this kind can be readily organized in a small community. The newness of it grasps the people's attention and the immediate need of the community for a physician can be easily comprehended from a number of concrete instances. The attempt to get a physician for an emergency or the high fees paid physicians of surrounding towns for making calls will illustrate.

"In addition, we might add the business asset to a community to have a physician. Directly the druggist is benefited and indirectly the grocer and other shopkeepers. The personality of the physician and the immediate confidence he can instil in the people of a community has much to do with a proposition of selling a health plan.

"Once the plan is sold there is a general sense of satisfaction among the people in having contributed to so worthy a cause; and, too, they early become engrossed with the idea of making use of the service they have paid for. Never before had they paid for a service to care for them in case of severe illness with a speculation only that it might happen. As a matter of course, their neighbors have had a 'check-up' at their local health office and found to have high blood pressure, a slight albuminuria, or what not—so why should they not see about the old attacks of backache, rheumatism, and the like?

"So, from the beginning, the doctor has had a good business; and, in turn, the contact has given both the doctor and the patient an enthusiasm for the community plan. It, indeed, seems an ideal arrangement.

"However, as the newness of it wears off, there concomitantly develops a lethargy in the family purse. They let the payments to the health plan drag on over the due time in spite of their signed agreement; and, if no one gets ill at home, then they just drop it for another year. However, if some one gets ill, there is again an active interest in the doctor.

"Another item of note is that the doctor is quite busy and seems to be very well established: 'he surely would never consider leaving a lucrative practice such as he now enjoys.' There is a psychologic factor in small towns, too, that is peculiar. If the doctor seems to be doing well financially he surely doesn't need further help and there is a trifle of envy of his prosperity.

"How does this attitude affect the physician? He begins to sense his situation and quietly revolves in his mind the possible outcome. He sees his income lowered, his patients outside the association tell him they will just pay him for his services when they call him; but in most instances it proves to be a charge account, which was the very thing that dispossessed his predecessor physicians of a livelihood. With the narrowing down of his income and the outlook of being relegated to the standing of an unconcerned village practitioner, it occurs to him there will be no further opportunity to grow professionally in his present situation. He may grow choleric and be easily peeved at such trifles as being called to the country to see some patient during his busy hours and to find the patient was well able to come to his office with his ailment. The patient might even complain that he should have brought all the medicine and therapeutic measures with him. Possibly the roads are a little bad and it would be better for the doctor to make the trip and, too, they disliked prescriptions. In nice weather, and when business was somewhat quick, they disliked having to call the physician from a croquet court after office hours—he surely had too much play in his mind."

(To be continued)

16. Special Report of the Department of Public Health (Massachusetts) Relative to Health and Medical Service in Sparsely Settled Districts, January 1925, pp. 78-82. French, H. E.: The Number and Distribution of Physicians in North Dakota, Federation Bull. **12**: 288 (Nov.) 1926.

17. McMillen, J. C.: A Proposed Scheme of Health Insurance for Manitoba, Canad. M. A. J. **32**: 311 (March) 1935. Report of Committee on Economics of Canadian Medical Association on Plans for Health Insurance in Canada, Canad. M. A. J. Supplement **31**: 46 (Sept.) 1934.

Official Notes

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title Your Health. The topics and speakers for the next three programs are:

May 4. Hospitals of Today, W. W. Bauer, M.D.
May 11. No broadcast.
May 18. Whooping Cough, W. W. Bauer, M.D.

The time of the broadcast is Tuesday afternoon at 3 o'clock central standard time (4 o'clock eastern time, 2 o'clock mountain time, 1 o'clock Pacific time).

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:
May 4—Irving Park Woman's Club, Chicago.
May 5—Joint Meeting, Lions and Kiwanis Clubs, East Chicago, Ind.
May 7—Rogers Park Congregational Church, Mayflower Circle, Chicago.
May 12—Lutheran Hospital Auxiliary, Moline, Ill.
May 12—Augustana College, Rock Island, Ill.
May 18—Englewood Kiwanis Club, Chicago, Ill.

DR. CHARLES GORDON HEYD:
May 3—Hartford Medical Society, Hartford, Conn.
May 5—Meeting of Organized Medical and Dental Professions, New York City.
May 11—Texas Medical Association, Fort Worth.
May 12—Nebraska State Medical Association, Omaha.
May 13-14—Iowa State Medical Society, Sioux City.
May 15—Medico-Surgical Society of New York.
May 18—New Hampshire Medical Society, Manchester.
May 20—New York State Dietetic Association, New York.

DR. R. G. LELAND:
May 6-7—American Association of Industrial Physicians and Surgeons, Detroit.

DR. PAUL A. TESCHNER:
May 4—Lions Club, Des Plaines, Ill.
May 6—Public Health Nurses, Oak Park, Ill.

MEDICAL EXHIBITS

May 2-5—Minnesota State Medical Society, St. Paul. Exhibits on objectionable obesity cures, mechanical nostrums, medical economics, syphilis, posture, and health information for the public by the physician.

May 4-6—Kansas State Medical Society, Topeka. Exhibits on what the public is thinking about health, allergic asphyxia, and food fads.

May 5-7—Tri-State Hospital Assembly, Chicago. Exhibit on hospital material.

May 10—Wisconsin State Medical Society, Madison. Exhibit on hospital material for Hospital Day.

May 10-12—Missouri State Medical Association, Cape Girardeau. Exhibit on patent medicines and quackery.

May 10-12—Texas State Medical Association, Fort Worth. Exhibits on obesity cures and mechanical nostrums.

May 12-14—Iowa State Medical Society, Sioux City. Exhibit on syphilis.

Medical Legislation

Medical Bills in Congress

Changes in Status.—Hearings were held by the House Committee on Ways and Means, April 27, on H. R. 6385, a bill to impose an occupational excise tax on certain dealers in marihuana, to impose a transfer tax on certain dealings in marihuana, and to safeguard the revenue therefrom by registry and recording.

H. R. 168 has passed the Senate, proposing to authorize an increase in the annual appropriation for books for the adult blind. H. R. 2711 has passed the House of Representatives proposing to create a division of water pollution control in the United States Public Health Service.

Bills Introduced.—H. R. 6455, introduced by Representative Mills, Louisiana, proposes to create a National Pollution Board in the United States. H. R. 6498, introduced by Representative Tinkham, Massachusetts, proposes to grant pensions to persons who served under contract with the War Department as acting assistant or contract surgeons between April 21, 1898, and February 2, 1901. H. R. 6623, introduced by Representative Short, Missouri, proposes to authorize an appropriation of $1,200,000 to erect a veterans' hospital in Missouri for the diagnosis, care and treatment of neuropsychiatric disabilities. H. R. 6624, introduced by Representative Teigan, Minnesota, proposes to prescribe an eight-hour day and six-day week for certain employees, including nurses, in veterans' administration homes, hospitals and combined facilities.

District of Columbia

Change in Status.—H. R. 5896 has passed both the House and Senate, proposing to provide for the prevention of blindness in infants born in the District of Columbia. The bill requires the health officer to provide in suitable containers a 1 per cent solution of silver nitrate or other preparation suitable for use as a prophylactic against inflammation of the eyes of the new-born child, the contents of each container being the exact quantity necessary for the treatment of one eye, and two such containers must be furnished for use in each case of childbirth. Each physician, midwife or other person in attendance on any case of childbirth must administer immediately such solution as a prophylactic. Each such person in attendance on a case of childbirth who finds that a new-born child has inflammation of the eyes, attended by a discharge therefrom, must report that fact in writing to the health officer within six hours. On receipt of such report, the health officer is required to direct the parents of such child to place it in the care of a registered physician or to furnish satisfactory proof of inability to pay for such medical service. If unable to pay, the parents must place the child in a hospital to be designated by the board of public welfare and at the expense of the board. The bill provides that no person other than a registered physician shall treat any case of inflammation of the eyes, attended by a discharge therefrom, of a new-born child for any period longer than may be necessary to obtain the services of a registered physician.

Oklahoma

Bill Introduced.—S. 421, to amend the medical practice act, proposes (1) to eliminate the provisions of the present act requiring that the board of medical examiners consist of representatives from the regular, eclectic, homeopathic and physiomedic schools of medicine and to substitute a provision that the governor appoint members of the board from a list of twenty-five names submitted by the Oklahoma State Medical Association; (2) in effect, to prohibit the practice of medicine by corporations and to make it a ground for the revocation of a license for the holder thereof to have professional connection with or to lend his name to any person engaged unlawfully in the practice of medicine and surgery or to engaged in the practice of medicine and surgery under any name other than the one specified on his license, and (3) to provide that any person hereafter licensed to practice any branch of the healing art, and who uses or prescribes medicine or practices major surgery, be required first to take and pass the regular examination to practice medicine and surgery in the state.

Rhode Island

Bill Introduced.—H. 734 proposes, as a condition precedent to the issuance of licenses to marry, that both parties to proposed marriages submit statements signed by licensed physicians that the parties have submitted to a Wassermann or Kahn or other similar standard laboratory blood test and that in the opinion of the physicians the parties are not infected with syphilis in a communicable stage.

Woman's Auxiliary

Kansas

The campaign to increase the circulation of *Hygeia* in Kansas has resulted in the placing of this health magazine in the principal schools of all counties in the state.

"The Friendly Auxiliary" was the subject discussed by the state president, Mrs. L. B. Gloyne, at recent meetings of the Wilson and Sedgwick county auxiliaries. Dr. R. A. West spoke on "The History of Obstetrics" at the Sedgwick County Auxiliary in March.

Labette County Auxiliary is doing intensive work on the basic science law. The auxiliary sent petitions with an explanation of basic science to the fifteen federated study clubs of Parsons, as well as to several other influential women's organizations of that city. These clubs were asked to give the subject careful consideration and to sign the petition and forward it to their representatives and senator in Topeka. All clubs except three complied with the request. Addresses were also given by physicians of the County at parent-teacher association meetings. At a recent meeting one of the members read a paper entitled "Our Health," securing the material from *Hygeia.*

Texas

The El Paso County Auxiliary presented a program on "Behavior Problems in Children," with Dr. Vance Thompson as speaker. He stated that there was a need for the wide establishment of child guidance clinics. Another program was given by Mrs. J. J. Gorman, who spoke on the subject "Obesity." Fake obesity cures were discussed.

The public relations chairman has arranged the following addresses:

Dr. R. B. Homan Sr., "Prevention of Tuberculosis," at the parent-teacher association of Bowie High School.

Dr. I. M. Epstein, "Child Study" at the elementary school principals' meeting; "Health Problem of Adolescent Age" at the parent-teacher association of Austin High School; "The Happy Child" at the parent-teacher association of Reeck School; "Behavior Problem" at the parent-teacher association of Caldwell School; "Nursery School Age" at the Vocational School; "Fads, Fancies, Fallacies" at the El Paso Woman's Club.

Dr. J. Hal Gambrell, "Effect of Health on Efficiency," at the parent-teacher association of Lamar School.

Dr. M. P. Spearman, "Prevention of Blindness" at the Woman's Auxiliary to El Paso County Medical Society (guest meeting).

At a recent meeting of the Harris County Auxiliary Dr. J. P. Malloy, director of the Houston Child Guidance Clinic, discussed the value of mental hygiene in the family and community life.

Mrs. R. B. Homan, president of the state auxiliary, spoke on "Allies of the Medical Profession" at a recent meeting of the Dallas County Auxiliary. Dr. J. H. Black spoke on "Sneezes, Sniffles and Such" at another meeting.

The Bowie-Miller Auxiliary gave a recent program on health education, reviewing articles from *Hygeia.*

Kerr-Kendall-Gillespie-Banderer Counties Auxiliary has established the "Ida Palmer Memorial Fund for Under-privileged Children," to perpetuate the memory of one of its members.

The Tom Green-Eight County Auxiliary held its March meeting at San Angelo. One of the members spoke on "Tuberculosis for the Layman."

Washington

Dr. Arthur Crookall, president of the Washington State Medical Association, wrote a special article for the Washington Auxiliary, which appeared in the January issue of *Northwest Medicine.* Dr. Crookall stated that the auxiliary might well be described as a diplomatic corps, for its members represent an army recruited for the promotion of public health and an understanding of scientific medicine.

The Washington Auxiliary, with Mrs. D. H. Bell as president, is continuing its work on the education of the public on all matters pertaining to health. A program for the members has been arranged for the year on such subjects as the work of the American Medical Association, the county medical service bureaus, state medicine, social insurance, hospitalization, nursing, and methods of disease prevention. Current literature relating to medicine and also medical history are included in this program.

Some of the auxiliaries have given plays on the radio and a series of health talks by physicians. The circulation of *Hygeia* has been increased and members have been instrumental in removing unscientific books and magazines from schools and libraries. Health exhibits have been collected and lent to lay groups. Material has been furnished for the negative side of the state-wide high school debate on socialized medicine. One of the county auxiliaries has created a fund for the purchase of medical books recommended by the American Medical Association to be placed in the city library.

The Auxiliary is interested particularly in forestalling attempts to socialize medicine and to vitiate the basic science law.

The philanthropic work varies. In Yakima several children's surgical beds have been purchased for the hospital and the women have made curtains for the children's ward, in Clark County constructive work has been done for the inmates of the institution of the

blind, and in Walla Walla County some of the auxiliary members have contributed their services to teaching physically defective children.

Mrs. J. T. Rooks, chairman of the public relations committee of the Walla Walla Valley Auxiliary has gathered and mounted 198 posters. They can be displayed as one whole or in fourteen different groups: Food Values, Common Defects in Children, Communicable Diseases, Posture, Nostrum Evils, Quack Medicine Venders, Pregnancy and Maternity, Baby's Bill of Health, Care of Infants and Children to School Age, Good Eyesight, Cancer, Dentistry and *Hygeia*. The series was first lent to Washington Teachers Institute in Walla Walla and since then there have been constant calls for it. At the Walla Walla county fair and the Milton, Ore., apple show there were crowds in the health booth all the time. It has been given to three different teachers' institutes, and parts have been used for teaching in high school classes. Everything in this exhibit has been obtained from the American Medical Association or from sources endorsed by the Association.

Medical Economic Abstracts

MUNICIPAL DOCTORS IN SASKATCHEWAN

Through the assistance of J. G. K. Lindsay, registrar of the College of Physicians and Surgeons of Saskatchewan, the Bureau of Medical Economics of the American Medical Association has received information as to the extent and methods of operation of the system of municipal doctors in that province.

The "model municipal doctor contract" that has been drawn up by the Saskatchewan Department of Public Health binds the physician to give medical care, attention and treatment to each and every resident of the area, without cost to such resident except as may be especially stipulated. He may not undertake any private practice, and in addition to supplying medical service to individuals he must assume all the obligations and perform all the duties of a medical health officer.

The physician must furnish the patient, on his first attendance for any illness, any drugs, medicines, dressings or other substances or things required for temporary relief, but all subsequent supplies are to be furnished at the expense of the patient or the municipality as may be set forth in the contract. He is to perform minor operations and set all fractures that are within the competence of the general practitioner, but the cost of roentgenograms shall be charged to and payable by the patient or municipality according to the local arrangement.

He is to provide immunization against diphtheria or other communicable diseases for all children of preschool or school age and for others who may request such protection. He is to give a physical examination to all school children at least once a year. He is to provide himself with an automobile for transportation, at his own expense. He must provide an annual report in such form as may be prescribed by the minister of public health.

The municipality will furnish a physician with a telephone, allow him three weeks' leave annually, with permission to attend the annual meeting of the Saskatchewan Medical Association, and in every alternate year he is to have the privilege of attending some medical institution for postgraduate work for two weeks.

In case of consultation, the charges for the consultant are to be paid by the patient. No information is available as to where consultants are to be obtained, with a single physician giving complete medical service to "each and every resident in the area." For any unnecessary call the physician may charge a fee of $2 in addition to a reasonable mileage fee, to be paid by the patient.

The contract also contains provisions for arbitration of disputes and for three months' notice on either side of termination of the contract. If the physician believes that the termination is without just cause, he may demand and receive the services of an arbitration board.

Patients are instructed to request home calls in the morning as far as possible, and calls at other times are to be made only in case of emergencies.

The maximum salary paid is $5,000 annually. A list of seventy schemes, including ninety-three physicians, contains only two instances in which this maximum salary is paid. The more frequent salary is between $2,000 and $3,500. There are also special contracts covering forty-six villages and one town, where the salaries are lower and where the arrangements generally provide that the physician's remuneration shall be based on a per capita payment, with various provisions as to payments for extra service or for mileage.

MEDICAL FEES IN VIRGINIA IN 1736

Whereas the practice of phisic in this colony is most commonly taken up and followed, by surgeons, apothecaries, or such as have only served apprenticeships to those trades, who often prove very unskilful in the art of a physician; and yet do demand excessive fees, etc.

Be it therefore enacted, etc.

That from and after the passing of this act, no practicer in physic, in any action or suit whatsoever, hereafter commenced in any court of record in this colony, shall recover for visiting any sick person, more than the rates hereafter mentioned: that is to say,

Surgeons and apothecaries, who have served an apprenticeship to those trades, shall be allowed:

	£.	s.	d.
For every visit, and prescription, in town		5	00
For every mile above 5 and under 10		1	00
For a visit of 10 miles		10	00
And for every mile, above 10			6
With an allowance for all ferriages in their journeys.			
To surgeons, for a simple fracture, and the cure thereof	2	00	00
For a compound fracture, and cure thereof	4	00	00

But those persons who have studied physic in any university, and taken any degree therein, shall be allowed,

	£.	s.	d.
For every visit, and prescription, in any town, or within 5 miles		10	00
If above 5 miles, for every mile more, under 10		1	00
For a visit if not above 10 miles	1	00	00
And for every mile, above 10		1	
With an allowance of ferriages, as before.			

And to the end the true value of the medicines administered by any practicer in physic, may be better known and judged of, Be it enacted, by the authority aforesaid, That whenever any pills, bolus, portion, draught, electuary, decoction, etc., the person administering the same, shall at the same time, deliver in his bill, expressing every particular thing made up therein; etc.

From An Act of Regulating the Fees and Accounts of the Practice of Phisic, Vol. 4, Hening's Statutes at Large of Virginia, p. 509. Material forwarded by Francis A. Faught, M.D. The value of pounds, shillings and pence varied widely in the colonies. According to the best information available, the pound, at this time, was equivalent to $3.30 and the shilling to 16 cents.

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, MAY 15, 1937

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Prevention and Sickness Insurance

Few are the arguments for sickness insurance that do not begin by assuming that preventive medicine is neglected under private practice and would be greatly increased under insurance. That this assumption is contrary to fact never seems to hinder its constant repetition.

The United States, Canada and Australia are the envy of every country with sickness insurance because of the wider extent of such preventive measures as immunization and campaigns for the early detection of tuberculosis and cancer. Certainly there is no country with sickness insurance where the medical profession is as thoroughly imbued with the importance of preventive measures as in the United States. There are more regular health examinations, and organized medicine has done more to encourage the public to secure such examinations than in any insurance country.

These statements have frequently been made by the opponents of sickness insurance, but they have never been accepted by those proponents who refuse to see the facts. Now, perhaps, they will accept the opinion of one of the foremost defenders of sickness insurance. The Paris correspondent (THE JOURNAL, April 17, p. 1352) quotes a statement of Dr. Alexandre Roubakine which appeared in the *Presse médicale* for February 13. Dr. Roubakine is a former expert to the Section of Hygiene of the League of Nations and in charge of the Service of Epidemiological Investigation of the League. The activity of the League in propagandizing for sickness insurance is well known, and Dr. Roubakine in his communication to the *Presse médicale* is arguing for such insurance; but he is arguing to people who, unlike those addressed by American advocates of insurance, are familiar with the workings of such systems. Therefore he does not make the mistakes of American writers. He says frankly that "sickness insurance applies only to the treatment of those who are already sick . . . it provides assistance to patients who are more or less indigent. The prophylactic activity of insurance is everywhere extremely feeble, generally null. . . . Immunization is not a duty of sickness insurance in any country. Sickness insurance applies only to the treatment of an existing case and not to prevention."

He admits that mortality for many diseases is higher in insurance countries, because insurance does neglect prevention, and then argues that the very fact that there is more sickness and a higher mortality under insurance "proves very logically that these countries [those with insurance] are especially in need of a system of treatment accessible to all wage workers, because the number of patients there is higher." This would seem to be equivalent to arguing that insurance first neglects prevention and thereby creates a large number of patients, which makes insurance necessary in order to give them the treatment ordinarily accorded to indigents.

Group Hospitalization

NOTE.—*This is the third of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

"Middle rate," "fixed rate" and "flat rate" plans were three forms of an arrangement adopted with the intention of reducing the cost for hospitalized illness, of stabilizing widely fluctuating charges for extra hospital services, and of standardizing physicians' fees. "Middle rate" plans did not guarantee that each patient would receive complete care for a set average charge but simply enabled a patient to consider his bill as a whole. Physicians' and nurses' fees and hospital charges were added together in one total, and all arrangements for payments were made through the hospital office. "Fixed rate" plans attempted to overcome uncertain charges under "middle rate" plans by fixing charges within a certain range—such as $47.50 to $100 for six days' hospitalization of surgical and obstetric patients. "Flat rate" plans set a definite charge for specific hospital facilities—as for example, $50 for obstetric cases exclusive of extras, or the services of physician and nurse. Under the variety of forms of the plan, the physician or surgeon agreed with the hospital to render his services for less than the usual fee, and the hospital was supposed to make similar concessions in its charges for hospital facilities and extra services.

The limitation of medical and surgical fees by the hospital seems to have developed in university hospitals, where fees were collected and retained by the medical school or hospital on the assumption that the salary of the physician was sufficient for both his teaching duties and clinical services. Fixed fee schedule plans were of no benefit to patients who, before the adoption of the protective schedule, had not been paying fees beyond their means. Probably because medical exploitation of the patient of moderate means was not a common practice, it was recognized that such plans offered no particular advantage to the patient and their promotion subsided.[7]

Deferred payment plans based on the endorsement by the hospital of patients' notes were also tried as a method to aid the patient unable to pay his bill in full. Through an arrangement with a bank the notes, which were for nine or ten months and bore 6 per cent interest, were paid immediately to the hospital. Largely because of the high percentage of notes dishonored and the reluctance of banks to accept such paper, this method of financing patients' accounts was not very successful. A few "finance" companies were formed which, in addition to the 6 per cent interest charge, required the hospital or physician to endorse the note and to accept an 8 per cent discount from the face value. The hospital or physician was also charged a service fee (5 per cent) and had to pay a commission (15 per cent) on all accounts requiring collection. The best of these plans did not lower but usually added considerably to the costs of medical care. The worst of these plans contained provisions that caused hospitals and physicians annoyance and perhaps financial loss. Other financial arrangements for the patient were made possible by small loan companies, which claimed that 10 per cent of their loans were made to meet the expense of sickness bills. Plans were also organized through banks for regular and systematic savings—similar to Christmas clubs—to provide funds that could be withdrawn only to meet the expenses of illness.

Group nursing plans, whereby a team of three salaried graduate nurses would each work an eight hour schedule to cover the twenty-four hour period for three patients sharing adjoining rooms, were also heralded as a means of reducing the cost of hospitalization for the patient of moderate means. When the services of the nurse were shared in this manner, the cost of nursing to each patient equaled the wages of one nurse plus the customary hospital charges for meals. A patient, instead of paying about $17 for twenty-four hours of personal nursing, would pay $7.50 for twenty-four hours of group nursing. Although such plans were enthusiastically adopted by a number of hospitals, they did not prove to be as advantageous as expected. The bills of the patients who formerly would rely on floor nursing were increased, and the patients who demanded individual nursing were not satisfied. The physician also objected to a different nurse at hand on his various visits to the bedside. The plan probably has some desirable features,[8] but it failed to be developed because of improper application.

These plans, and other similar plans, illustrate the searchings of hospital administrators for some method of broadening the base for hospital income. However, most of the plans had but little success and seemed destined to be but sporadic experiments until 1931, when a concerted movement toward group hospitalization plans began. The only essential difference

7. Goldwater, S. S.: The Problem of the Patient of Moderate Means, Tr. Am. Hosp. A. 32: 423 (Oct.) 1930.

8. Babcock, W. L., and Delong, M. D.: Group Nursing—Eight Years of Experience, Bull. Am. Hosp. A. 9: 64 (Oct.) 1935.

between the later group hospitalization plans and the early plan of selling hospital "season tickets" or the hospitalization plan like that of the Grinnell Community Hospital was that these later plans were sold on a group payroll deduction basis instead of on an individual purchasing basis. The group selling arrangement permitted a rapid enrolment of members, avoided the selection of adverse risks and made the collection of the premium or dues more simple. These advantages were of great assistance in the promotion of group hospitalization plans. Before considering the recent development of group hospitalization plans, the experiences in England with "contributory" and "provident" schemes demand attention, because these schemes are frequently indicated as the origin of group hospitalization plans.

THE BRITISH SCHEMES

As early as 1920 the British hospitals were confronted with decreased incomes and increased free services, resulting in a financial stringency somewhat similar to the condition to be faced by American hospitals a decade later. To meet the situation two types of hospital plans—contributory or "poor men's" schemes, and provident or "middle class" schemes—were developed.

The contributory schemes were organized to provide funds for voluntary hospitals. These hospitals—endowed teaching institutions with large wards and staffed by unpaid physicians—were purely charitable organizations supported by philanthropic persons for the benefit of the poor. The economic conditions following the World War caused the wealthy and middle classes to limit their gifts to voluntary hospitals, and as a result the hospitals devised plans to seek contributions from the industrial and low wage groups. The Oxford plan at Radcliffe Infirmary, organized in 1920, was the first English effort to adapt a contributory scheme of hospital support to the circumstances of a large urban and agricultural district.

The subsequently organized schemes differ in many details, but the customary fee is 3d. (about 6 cents) weekly, or 12s. (about $3) annually, collected from groups of employees through payroll deductions. It is clearly indicated to the contributor that his payments do not create a contractual relation with the hospital entitling him to any definite service, and that the objectives of the plan are (1) to raise funds for the maintenance of voluntary hospitals, and (2) to provide hospital care for persons with limited incomes. Payments are accepted as a voluntary contribution for the support of hospitals, and the conditions of admission of contributors are at the discretion of the hospital.

These low rate contributions are confined to the low income classes by specific income limits. Usually the contributor's income must not exceed $20 a week for single men or women, $25 a week for married men without dependent children, and $30 a week for families with dependent children. Furthermore, contributors regarded by the hospital authorities as not coming within the definition of the phrase "of limited income" can be called on to make some additional payment toward the cost of the service they receive.

Despite the pronouncements by the special governmental committee appointed in 1921 to consider the financial conditions of voluntary hospitals, that the adoption of insurance schemes "might involve hospital authorities in contractual obligations which they might find exceedingly difficult to discharge";[9] by the British Medical Association that "it is undesirable that hospitals should themselves undertake any insurance risk in connection with hospital services,"[10] and by a provision of the contributory schemes themselves that "membership of the scheme does not of itself ensure admission to any hospital,"[11] the schemes took on more and more of an insurance character and the contributor came to look on them as advance payments for hospital care. The charitable nature of the schemes was reemphasized at a conference of administrators of contributory schemes[12] as follows:

> It would be a great pity if it went abroad that we considered that a contributory scheme was in the nature of an insurance scheme. It cannot be that. If you are in an insurance scheme, you pay not only the full cost of treatment, but something else, a profit for your shareholders as well. Here we do not pay the cost by any means. What it really is, is an organised attempt to pay as much as possible, the maximum amount possible towards the cost, which is a very different thing. We cannot expect that 2d. a week can pay anything like the cost; we are not sure in Birmingham that even with 3d. a week it will pay the full cost, and therefore, we cannot really call it technically, anything in the nature of an insurance scheme.

The schemes were designed to obtain small amounts of money from workmen who were already receiving free services and were not "insurance" plans to distribute the cost of hospitalized illnesses among people accustomed to paying hospital bills. The inducements offered to the contributor in lieu of a guaranty of hospital service were:

1. He would be relieved of the necessity of securing a "hospital letter" for admittance.

9. Contributory Schemes, Voluntary Hospitals Commission, London, His Majesty's Stationery Office, 1923.

10. Hospital Policy, British Medical Association, London, British Medical Association House, 1933, p. 17.

11. Contributor's Card, Birmingham Hospitals Contributory Scheme.

12. Report of Proceedings at a Conference of Contributory Schemes, Birmingham, British Hospitals Contributory Schemes Association, November 1930, p. 18.

2. He would not be subjected to any inquiry as to his means.

3. He would not be called on to make any donation after admittance to the hospital, as were other patients.

4. He would be provided with convalescent treatment, specialist services, spectacles and appliances at reduced rates not available to noncontributors.

Through these devices the hospital secured contributions without being obligated for the admission and free maintenance of contributors. The care taken by the voluntary hospitals to avoid any contractual obligation was a recognition that, as a result of gifts and endowments, the necessitous poor should have first claim on the hospital facilities and that the urgency of a medical or surgical case should be the only compelling reason for the admission of any person.

(To be continued)

The Home of the American Medical Association

NOTE.—*This is the nineteenth of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

THE BINDERY AND MAILING DEPARTMENT

The Bindery and Mailing Department occupies the first and third floors and on Thursday and

Assembling, Stitching and Covering Machine

Friday, when THE JOURNAL is being mailed, employs about fifty people. It is under the supervision of Mr. Ernest Booth. Some employees

A Representative from Post Office Weighing and Routing Mail

classified as mailers are used for these days only and during the other days of the week are working as mailers in some of the other large publishing houses of the city. With the numerous folding and stitching machines, the new inserting machine for letters, the sewing machines and the trimmers, the third floor has the appearance of a busy factory. The six folding machines can be adjusted to fold automatically at great speed articles varying from the size of THE JOURNAL itself down to small circulars. The automatic stitching machine is used to stitch reprints with wire. The two sewing machines, which employ four girls to operate, stitch together with thread the pages of all the special journals. There is being installed in the bindery at this time a new inserting machine

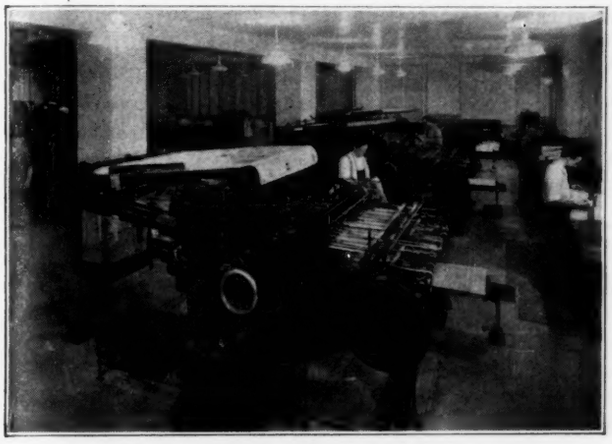
Mr. Ernest Booth, Assistant Superintendent
Miss Tillie Hennings, Forelady of Bindery

for letters which will automatically gather together as many as six insertions in one letter and place them in an envelop and seal it.

The two trimmers on the third floor are heavy machines, equipped with a huge knife for the purpose of trimming the edges of the special journals and the numerous reprints and folders.

When the bindery moved much of its machinery from the first to the third floor, a most interesting machine, which has been in operation as a gathering machine for thirty years and as a combined gathering and covering machine for twenty-five years, remained on the first floor. The present gathering and covering

machine has ten pockets, into which the forms of THE JOURNAL or other publications of the Association are placed in the same sequence that they will appear in the publication itself. As the carrier revolves, an iron arm reaches into each one of these pockets and draws out an eight, sixteen or maybe thirty-two page form of THE JOURNAL. When the forms have all been gathered, the same machine stitches them together with wire. Then they pass on by the glue pot and, still moving, pass a drum which picks up the forms and places a cover around



The Bindery—Folding Machines

them—and THE JOURNAL is complete. It is then placed in bunches of about twenty under a huge trimming knife which cuts off the rough edges of the paper. As wonderful and interesting as this old gathering machine is, a new rotary gathering machine with two three-wire stitchers and one new style oval type covering machine has been ordered from a manufacturer in Providence, R. I., and it is expected to be delivered sometime this fall. It will have fifteen pockets instead of ten and will produce 175

Mailing Room—First Floor

journals a minute, whereas the present machine will produce a maximum of eighty-five a minute.

From the trimmer THE JOURNALS are carried over to be stacked in front of the mailers, before whom are a small stack of wrappers. The mailer places the wrapper around THE JOURNAL and with a small machine which he carries in one hand stamps the address of the subscriber on

Bindery Sewing Machines

THE JOURNAL and then pushes the addressed copies of THE JOURNAL or other publications on into an open mail sack, which is hanging at the end of his table. Long lists of the names and addresses of the subscribers are prepared in the stamping machine department on the seventh floor and arranged in proper order. When six or more journals go to the same town

Bindery—Third Floor

they are separately addressed to the subscribers and then made up in a bundle which is addressed to the postmaster, who opens the bundle and distributes them in that postoffice.

A representative from the Postoffice Department is on hand to weigh the sacks of addressed journals. They are then placed in a waiting truck and carried directly to the various railway stations in Chicago without having to pass through the local postoffice. It is arranged to have these sacks placed on trains so that those going farthest will be mailed first. In this way copies of THE JOURNAL are received throughout most of the country at about the same time; that is, on Saturday.

(To be continued)

Rural Medical Service

NOTE.—*This is the nineteenth of a series of articles on Rural Medical Service, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

Much publicity has recently been given to what have been called "cooperative" medical plans in rural districts. If the name "cooperative" is to continue to retain the meaning given to it by the Rochdale weavers, who started the present "cooperative" movement, then none of these schemes have any right to be known as "cooperatives."

An examination of a number of these proposals shows that none of them have attempted to suggest any practical method by which one of the fundamental principles of cooperation—the consumer dividend to purchasers—can be applied to medical service. No plan operating in the United States can by any fair use of the word be considered a "cooperative."

One scheme now in operation which has been given considerable publicity and hailed as a successful medical "cooperative" is simply a scheme of contract practice. The promoter and manager succeeded in selling sufficient shares at $50 each to build a hospital in a community already well supplied with good medical service. This hospital has not been able to meet the standards required for approval by the American Medical Association. The share purchasers are now required to pay $25 per family, annually, to secure a limited medical service in what must be designated as a substandard hospital. In addition to this $25 they are also charged for numerous "extras." There is nothing about this plan that is new or that appears to offer any prospect of improving medical service in rural districts such as have been considered in this study.

Reports from all over the United States as to schemes for rural medical service, most of which are some variation of well known contract schemes that have proved unsatisfactory elsewhere, make it quite clear that such schemes are never proposed in any locality where there is really a lack of medical service. Two conditions seem to be essential before any promoter of such a scheme is interested: first, there must already be ample facilities for medical service; second, the average income in the community must be high enough to provide a margin for the promoter.

One such recently proposed plan is to be located in a county which would undoubtedly be included in any list of ten counties in the United States having the most ample and adequate medical facilities for the population. It would seem to be quite evident why such counties are selected. They are the only ones in which promoters of such schemes can hope to find enough people with sufficiently high incomes to make a sales program profitable.

All such schemes are variations of voluntary health insurance. Such insurance has been discussed so widely in medical literature that there would seem to be little need to repeat the arguments for and against it here. Whatever may be its merits or demerits, it does not seem to offer any prospects of providing medical services to districts where the supply of physicians and medical facilities appear to be inadequate. The problem with which promoters of such schemes seem most concerned is less how to obtain more and better medical service for the residents than how to introduce a third party between the patient and the physician who will profit by persuading the former to accept an inferior service.

Conditions affecting rural medical service are so diverse that only after analysis of all the factors in any individual locality can a diagnosis be made and treatment prescribed. Placement services conducted by state medical societies or medical colleges can assist in directing physicians to locations where there is the greatest need for their services. Several medical colleges are already revising their curriculums for the purpose of better equipping their graduates for rural practice.

Where auxiliary equipment or services are needed to facilitate the work of physicians, the state and county medical societies should carefully survey the situation to determine such needs and how they can best be met. Hospitals should not be built as monuments to the dead or for the advantage of politicians but for the benefit of the sick. Laboratory service should be provided in the form that will best further the private practice of medicine and the treatment of disease. An extension of nursing services, in cooperation with local practitioners in some of the Appalachian areas covered in this survey, seems to be supplementing the services of physicians and making it possible to give better service. Similar extension may be found helpful elsewhere.

The construction and equipment of more hospitals in rural districts is frequently urged as a means of providing all auxiliary facilities and services simultaneously. Without expressing any opinion as to the desirability of additional hospitals in certain localities, it is doubtful whether any wholesale program of hospital construction, financed by federal or state funds, would actually be helpful in many of the localities covered by this study. The hospital

facilities already available in these counties are far from being utilized to their full capacity. It is by no means certain that to establish more hospitals that might be poorly staffed, underequipped and inadequately supported would greatly improve the medical services that could be given to the residents in these sections.

A more promising line of action appears to be offered by efforts to improve and add to the availability of existing institutions. Improved transportation will sometimes change the entire relation of a community to medical facilities. The suggestion has been offered, and some experiments have been made in that direction, that an ambulance equipped for emergency surgical work be attached to hospitals located within a reasonable distance of communities lacking hospital facilities. Such an ambulance might be sent, together with a physician and nurse, to the home of the patient where emergency operations or treatment could be given and, if necessary, the ambulance containing the patient might remain as a sort of emergency hospital ward until the patient could safely be moved either to a hospital or to his home. Some such plan might be more suitable to the medical and economic needs of certain districts than the building of new hospitals.

Any action concerning districts that now appear to be deficient in medical service should keep in mind possible developments in connection with the extension of public health activities in the fields for which they are suited. Public sanitation, control of epidemics, and the provision of such forms of preventive measures as properly belong in the field of public health will permit more effective service by private practitioners.

Increased knowledge gives a physician increased power to give medical service. Already nearly every state medical society is developing a plan of graduate education, and some societies are making special efforts to reach rural physicians. Such action by increasing the efficiency of resident physicians would to a considerable extent be equivalent to increasing the number without adding to the local financial burden.

In the replies from secretaries of state and county medical societies there have been numerous suggestions of possible readjustments of fees and especially of mileage charges as a means of meeting special situations in rural communities. Manifestly this is so peculiarly a special local problem that any general proposals are difficult. It does, however, offer opportunity for local discussion and recommendations. Proposed action as to fees is usually connected with suggestions for payment by public authorities for the indigent and special adjustments for those with low incomes. Most of the state and county plans to meet this situation have originated in cities, but some have already extended to rural districts. As an example the Michigan State Medical Society is now operating a statewide plan, and the Alameda County plan covers considerable rural territory.

Works Progress Administration Activities

(Continued from page 153B)

Facilities for hospital employees were not overlooked in the general construction and modernization work, as witness the addition to the nurses' home at the Salt Lake County Hospital, Salt Lake City, and an employees' dormitory for the Nevada State Hospital for the Insane. At the county tuberculosis hospital in Amherst, Ohio, a school room was provided with the help of the WPA for the benefit of the children patients.

The examples given so far have been mostly those either for specialized construction or for construction in special types of cases, though the program for the construction and repair of general utility hospitals occupied the most generous place in the hospital construction activities of the WPA.

Impressive ceremonies participated in by federal, state and city officials marked the start of the razing of the old Charity Hospital in New Orleans in October 1936 to make way for what is planned eventually to be an $8,000,000 public hospital. Governor Leche of Louisiana declared that the new building would be the greatest in the state. Start was made with a $65,000 WPA razing project, which was expected to salvage approximately $125,000 worth of materials.

Practically every public hospital in New York City received help—some a great deal and others not so much. The Children's Hospital on Randall's Island was dismantled and its patients transferred to the remodeled prenatal home on Kissena Boulevard, Queens. Other projects called for improvements to the North Brothers' Island Hospital for Contagious Diseases; to the various hospitals on Welfare Island; to the interior of all the older Bellevue buildings, an institution covering more than five city blocks, and to the Harlem, Morrisania, Kings County, Coney Island, Queensboro and other hospitals. An average of more than 3,000 WPA workers has been kept continuously employed in this kind of work in New York City.

A $300,000 program for the construction of new facilities at the University of Kansas Hospital at Kansas City, Kan., was made possible by

the WPA's contribution of 45 per cent of the cost of labor, while state appropriations and private contributions provided the remainder. The 103 year old Natchez, Miss., charity hospital was repaired and modernized so as to bring its cost per patient, which had been high because of obsolete equipment, down to the most efficient standards. After many difficulties, projects were selected for operation to fill in swamp land about the Boston State Hospital at Mattapan, Mass., to build about 1,000 feet of new wall and otherwise to make improvements that had been badly needed for some time.

The third and last unit of the Southside District Hospital at Mesa, Ariz., erected with the aid of the WPA, was dedicated by Governor B. B. Moeur, who, on Dec. 27, 1936, called it one of the foremost institutions of its kind in the state. A $250,000 project permitted the addition of an air conditioned, four story and basement addition to the Davenport, Iowa, City Hospital. Private citizens donated the site, business concerns and other private citizens raised funds for material, and the WPA provided the labor for the construction of a new $40,000 hospital at Brooksville, Fla., to serve Hernando County.

Construction has been started as a project of the Works Program on a 300 patient ward building to be added to the Hastings State Hospital in Nebraska, bringing its capacity up to 1,800 beds. A four story, brick, concrete and steel wing was added to the hospital of Ohio State University at Columbus, enabling the addition of an isolation ward and a public dispensary.

At the State Hospital at Huntington, W. Va., WPA labor was responsible for construction of nine new farm buildings, the remodeling of two others, construction of sleeping barracks for patients who work on the farm, a rock base road and other improvements. These led the superintendent, Dr. C. T. Taylor, to declare that "without the assistance of the WPA it would have taken many years to accomplish what the WPA has done in less than a year."

Official Notes

THE ATLANTIC CITY SESSION

Broadcasts During the Annual Meeting

Radio broadcasts in connection with the meeting of the American Medical Association at Atlantic City have been arranged as follows:

NATIONAL BROADCASTING COMPANY NETWORK

Monday, June 7—6 to 6:15 p. m. Dr. Charles Gordon Heyd, New York, President, American Medical Association. "Your Doctor and Your Health." (Red.)

Thursday, June 10—9:45 to 10 p. m. Dr. Paul A. Teschner, Chicago, Assistant Director, Bureau of Health and Public Instruction, American Medical Association. "Convention News and Highlights." (Blue.)

COLUMBIA BROADCASTING SYSTEM NETWORK

Monday, June 7—4-4:15 p. m. Dr. J. H. J. Upham, Columbus, Ohio, President-Elect, American Medical Association. "Medicine and the Public."

Thursday, June 10—4-4:15 p. m. Dr. W. W. Bauer, Director, Bureau of Health and Public Instruction, American Medical Association. "Your Doctor Keeps on Learning."

The time noted is eastern daylight saving time. Eastern standard time is one hour earlier, central standard time two hours earlier, mountain time three hours earlier and Pacific time four hours earlier.

Joint Committee Conference on School Health

In connection with the Symposium on Health Problems in Education, scheduled for 2 p. m. Tuesday June 8 at the Hotel Chalfonte, there will be a conference of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association at 10 a. m. June 8 in room 71 at the Hotel Chalfonte. All physicians interested in school health problems and their relation to medical practice are invited to attend. A luncheon has been arranged in the Blue Room of the Hotel Chalfonte at 12:15 p. m. June 8. Luncheon reservations should be made by addressing Dr. W. W. Bauer, 535 North Dearborn Street, Chicago. The price of the luncheon is $1.50, but Hotel Chalfonte house guests may attend this luncheon without further cost. No reservations are required for attendance at the morning conference.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:

May 18—Englewood Kiwanis Club, Chicago.
May 24—Wilmette Optimists Club, Wilmette, Ill.
May 27—Iowa-Illinois Central District Medical Association, Davenport, Iowa.
June 1-3—National Tuberculosis Association, Milwaukee, Wis.

MR. HOWARD A. CARTER:

May 26—Medical Society of the State of New York, Rochester, N. Y.

DR. MORRIS FISHBEIN:

June 1—Edison Electric Institute, Chicago.
June 3—Northwestern University, Chicago.

DR. CHARLES GORDON HEYD:

May 18—New Hampshire Medical Society, Manchester.
May 20—New York State Dietetic Association, New York.
May 24—Medical Society of the State of New York, Rochester.
May 27—Lackawanna Medical Society, Scranton, Pa.
June 2—Massachusetts Medical Society, Boston.

DR. R. G. LELAND:

May 24, 25 and 26—South Dakota State Medical Society Meeting, Rapid City, S. D.
June 2-3—Rhode Island State Medical Society, Providence, R. I.

MEDICAL EXHIBITS

May 16-18—North Dakota State Medical Society, Grand Forks. Exhibits on the doctor prevents disease, patent medicine testimonials, objectionable cosmetics, and cutaneous granulomas.

May 18-20—Illinois State Medical Society, Peoria. Exhibit on what the public is thinking about health.

May 18-20—Woman's Auxiliary, Illinois State Medical Society, Peoria. Exhibit on *Hygeia* in school and home.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title Your Health. The topics and speakers for the next three programs are:

May 18. Whooping Cough, W. W. Bauer, M.D.
May 25. Your Summer Vacation, Morris Fishbein, M.D.
June 1. Keeping Your Baby Well, Paul A. Teschner, M.D.

The time of the broadcast is Tuesday afternoon at 2 o'clock central standard time (3 o'clock eastern time, 1 o'clock mountain time). The Pacific network is no longer included.

Medical Legislation

Medical Bills in Congress

Bills Introduced.—S. 2311, introduced by Senator Copeland, New York, proposes to provide for adequate medical and dental services for individuals of the military establishment of the United States. H. R. 6660, introduced by Representative Scott, California, proposes to extend the benefits of the Spanish American War pension laws to men who served as contract nurses. H. R. 6592, introduced by Representative Sheppard, California, proposes to authorize an appropriation of $500,000 to erect a veterans' hospital, primarily for the treatment of diseases of the chest, in the Mojave Desert of either San Bernardino or Riverside County, Calif. H. R. 6767, introduced by Representative Maverick, Texas, proposes to establish in the National Institute of Health a National Cancer Center to promote research in the cause, prevention and methods of diagnosis and treatment of cancer. S. 2359, introduced by Senator Copeland, New York, proposes to provide for the establishment of a Bureau of Coordination of Milk and Milk Products Regulation in the Department of Agriculture. H. R. 6810, introduced by Representative Gearhart, California, proposes to authorize an appropriation of $2,000,000 to erect a 500 bed patient capacity veterans' hospital in California "to permit needed expansion, for the diagnosis, care and treatment of veterans suffering from mental and nervous diseases, and to provide government care for the increasing load of mentally and physically afflicted veterans, regardless of whether said disability developed prior to January 1, 1925." H. R. 6829, introduced by Representative Izac, California, proposes an appropriation of $950,000 to erect a marine hospital at San Diego, Calif.

California

Bill Passed.—A. 1253, to amend the act prohibiting the manufacture, sale or transportation of adulterated, mislabeled or misbranded drugs, passed the House April 1. It was so amended in the senate April 29 as to make it unlawful also for any person to sell, dispense, administer or prescribe dinitrophenol for therapeutic purposes.

District of Columbia

Bills Introduced.—S. 2283, introduced by Senator King, Utah, and H. R. 6696, introduced (by request) by Representative Norton, New Jersey, propose to amend the healing arts practice act of the District by repealing the time limitation within which persons licensed prior to the effective date of the act were required to apply for a new license under the act.

H. R. 6869, introduced by Representative Quinn, Pennsylvania, proposes to regulate the practice of cosmetology in the District. The bill expressly provides that cosmeticians licensed thereunder shall not engage in any "practices as come within the scope of the Healing Arts Practice Act in force in the District of Columbia at the time of the passage of this act."

Florida

Bill Passed.—S. 154 has passed the Senate, proposing to require every licensed person engaged in the practice of any form of the healing art to place in a conspicuous place at the entrance to his office words or proper abbreviations denoting the particular branch of the healing art which he is licensed to practice.

Bills Introduced.—S. 485 and H. 899 propose to grant to hospitals, physicians, osteopaths, dentists, chiropractors, naturopaths, nurses and podiatrists, treating persons injured through the fault of another, liens on all claims, rights of action, judgments or settlements accruing to the injured persons by reason of their injuries. H. 240 proposes to prohibit the advertising, sale or distribution of appliances, drugs or medicinal preparations intended or having special utility for the prevention of conception and/or venereal disease, except by licentiates of the state board of pharmacy and by "physicians and medical practitioners regularly licensed to practice medicine or osteopathy in the state of Florida by the state board of medical examiners." S. 563 and H. 960 propose to require all applicants for licenses to practice any form of the healing art, as a condition precedent to their right to examination and licensure by their respective professional boards, to pass examinations in anatomy, physiology, chemistry, bacteriology, pathology, and hygiene to be given by a board of examiners in the basic sciences. This board is to consist of five members selected because of their knowledge of the basic sciences, and each member must be a member of the faculty of the University of Florida, the Florida State College for Women or some other institution of learning in the state of equal rank. No member shall be actively engaged in the practice of the healing art or any branch thereof.

Illinois

Bills Introduced.—S. 339 proposes to grant to all licensed practitioners of the healing art or hospitals treating persons injured through the negligence of others liens on all rights of actions, claims, judgments or settlements accruing to the injured persons by reason of their injuries. H. 815 proposes to create the Illinois State Cancer Hospital Commisison, to consist of two members of the House of Representatives, two members of the Senate and two private citizens appointed by the governor. The commission is to be directed to make a scientific study of the needs of the indigent people of the state for the establishment of a hospital and clinics for the prevention and treatment of cancer and allied diseases and is to make a report embodying its recommendations to the sixty-first gen-

eral assembly. H. 816 proposes to require physicians treating persons afflicted with any venereal disease to report the facts to the department of public health within twenty-four hours after ascertaining the presence of any of the diseases referred to. When a person has been found by a physician to be afflicted with a venereal disease and fails to return for treatment as directed by the physician, the physician must notify the department of the facts and the department must investigate and report to the appropriate state's attorney, who is to institute proceedings designed to compel the afflicted person to submit to treatment. Indigent persons afflicted with a venereal disease may receive treatment free of cost by petitioning the appropriate county court. A person who is afflicted with a venereal disease and refuses to submit to treatment may be fined from $50 to $200 and/or imprisoned for not more than one year. H. 828, to amend the medical practice act, proposes to require a person licensed to practice the healing art to record his license in the office of the county clerk in which he has his principal office. The present law requires recording in the office of the county clerk in every county in which the practitioner regularly practices.

Michigan

Bills Introduced.—H. 552 proposes to require every physician attending a patient whom he believes to be suffering from any occupational disease contracted as the result of the patient's employment to report the facts to the state health commissioner. Under the present law a physician must report to the state board of health instances in which he believes his patient is suffering from poisoning from lead, phosphorus, arsenic or mercury or their compounds, or from anthrax or from compressed air illness. H. 565 proposes to repeal the present laws regulating the possession and distribution of narcotic drugs and to enact what appears to be the uniform narcotic drug act.

Pennsylvania

Bill Introduced.—S. 1107 proposes to create a state board of examiners of psychologists to examine and license persons to practice psychology. The bill proposes to define psychology as "the administration and interpretation of mental tests and of other psychological techniques for the understanding and explanation of human behavior and the recommendation and application of techniques, devices and methods for the retraining and reeducation of persons who are maladjusted." Apparently the bill would require licensed physicians engaging in the practice of psychiatry, if they desire to continue legally in such practice, to submit to examination and licensure by this board.

Woman's Auxiliary

Georgia

"Distinguished Physicians of Literature" was the subject chosen by Dr. William Myers for his talk to the Woman's Auxiliary to the Georgia Medical Society at the January meeting in Savannah. Dr. Myers spoke of Sir William Osler and his distinguished biographer, Dr. Harvey Cushing; Sir Thomas Moore, the author of "Religio Medici"; Sir Arthur Conon Doyle, Dr. Oliver Wendell Holmes and others.

Plans were made at this meeting for the observance of "Doctor's Day" March 30 the day on which the famous Georgian Dr. Crawford W. Long first used ether anesthesia in surgery. Mrs. William R. Dancy, state president, also spoke and read a communication from Dr. James Campbell, chairman of the cancer commission, asking support of the bill now before the Georgia legislature for an appropriation for the care and treatment of needy cancer patients.

The Woman's Auxiliary to the Fulton County Medical Society had as speakers at recent meetings Dr. Howard Hailey, whose subject was "Cosmetics"; Dr. C. C. Aven, who discussed medical legislation; Mrs. Fred Hodgson, whose subject was citizenship and health conditions in the Orient, and Miss Loretta Chapman, state supervisor of child welfare.

The Tri-County Auxiliary, composed of Burke-Screven-Jenkins counties, held its last meeting in Millen. Mrs. Ralph H. Chaney, president-elect of the state auxiliary, discussed health education and urged that members be informed on pending medical legislation.

At the Harris County Auxiliary meeting, Dr. B. N. Bussey discussed the health program in Harris County.

Medical Economic Abstracts

CULTS AND THE BASIC SCIENCE LAW

Dr. J. F. DuBois, secretary of the Minnesota State Board of Medical Examiners, gives the following figures to show the workings of the basic science law since its passage in 1927:

"On April 12, 1927, there were 465 osteopaths registered. Since then forty have passed the examination, one has come in by reciprocity and eight by previous licensure. Yet in 1936 there were only 166 registered.

"On April 12, 1927, there were 592 chiropractors registered. Since then thirteen have passed the basic science examinations and three have registered by previous licensure. Yet in 1936 there were 410 registered.

"In 1928 there were 111 midwives registered. Six new licenses have been issued to date. Yet in 1936 only sixty-four were registered. There are no approved schools of midwifery in the United States. An applicant must pass a written and oral examination and must be vouched for by two reputable physicians."

ERRORS OF "EXPERTS"?

In a propaganda pamphlet edited by Stuart Chase, Henry Pratt Fairchild and Harry A. Overstreet, entitled "Rich Man, Poor Man," for which contributions to aid its free circulation are solicited, one of the most familiar errors with regard to medical care is published. In text and illustration the public is told that in an average year more than half of our people receive no services from a physician. This is offered as proof of the fact that there is "not enough medical care."

It would seem that men who have gained a reputation as economists and sociologists should have been able to learn from the investigations that have thus far been made that only about half of the population is sick during the year and has any need of medical care. These investigations have shown also that about 47 per cent of the population does receive medical services. It does not appear that more than 5 per cent of the people who are presumably in need of medical attention do not receive such care.

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

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The Family Doctor

BURT R. SHURLY, M.D.

DETROIT

The great national bodies of organized medical men seem to have failed to make a united effort to provide our people with periodic health examinations; yet this is our responsibility and also great opportunity of service. A discussion and analysis of the reasons for our lack of success are timely and valuable. The movement has the endorsement of the House of Delegates of the American Medical Association and many state and county societies. Under the leadership of Pusey and many others it started with much enthusiasm and bid fair to succeed as a valuable method of bringing again a closer contact, confidence, respect and understanding between the family doctor and his patients. In these changing decades innumerable factors have been at work to destroy the steadfast love, veneration and respect of the older day for the family doctor. Under the newer psychology ›t old reverence has drifted in an alarming ˜usion of ideas. The family doctor must › back as the guide, comforter and confidant ‹ › e family.

› periodic health examination belongs to the family doctor but he has failed in the application of his opportunities. The lack of success has come, as Faught of Pennsylvania has shown, from lack of interest in this type of preventive medicine, insufficient confidence in our ability, general apathy toward following through with trivial ailments, and the vast number of patients in the hands of specialists who may have little knowledge or interest beyond their chosen field. Seven hundred and fifty thousand lives are lost annually because of diseases that are preventable. Men must be made to see that prevention is the only key that will effectually lock the flood gates of sickness to this awful tragedy, suffering and loss.

Many men are not trained or interested in a complete physical examination—this is lengthy and takes considerable time when properly done.

The public is in a state of resistance. Advice of the physician is disregarded for that of the radio, the newspaper, the neighbor, the industrial surgeon, the insurance company or the quack. Again, the cost is often an obstacle.

I believe most sincerely in the great value of the periodic health examination. It is the greatest force that preventive medicine could use, but our methods of impressing its value on the public are inadequate and I think our course of action to establish this force of mutual advantage to the public and profession must not rest alone on the state, county and national societies, in talks to the undergraduate and in movies for the public.

It may be well to argue that the laborer is worthy of his hire and that the skilled physician is entitled to a just fee for his examination, but the public is socialistic these days, and more and more it is felt that an influence coming from outside the family has some sinister peculiar motive of its own that does not get them enough out of it. They know and they guide themselves and "you're telling me" continues to be a favorite resistant attitude of a large part of our population. I believe our chiefs of organized medicine realize that as a force in molding public opinion they are "not quite as good as they used to be."

People generally are not using this valuable force—the periodic health examination—although our knowledge of preventive medicine is greater than ever before. Why? I believe that it is because of the new psychology of our people—they will not heed the advice of the

medical profession alone. The demand must come from the people to the profession and not from the profession to the people.

We have the cart before the horse or the exhaust before the motor. More than six million men were examined, many periodically, during the World War and a tremendous and startling number of defects were observed. These examinations, these medical services were free, and new ideas and a new psychology were imposed on the men of all nations. Statistics tell the far reaching effect of these examinations. We were

TABLE 1.—*Physical Examinations Reported by Private Physicians*

New Entrants to:	1934	1935	1936	Total 34-36
Elementary	2,000	8,962	10,726	21,688
Intermediate	.....	1,645	3,186	4,831
High school	.....	3,522	6,321	9,843
Unclassified	.....	986	.....	986
Total	2,000	15,115	20,233	37,348

made aware that defects of hearing, eyesight and teeth, pathologic tonsils and adenoids, subnormal mentality, hernias and various malformations were far in excess of expectancy. It is true that there was necessarily a wide difference between the different states in the ratio of men rejected. For instance, in Maine 9.8 per cent were rejected while in Alaska it was only 0.61 per cent, although the variations were due more to the various ideas of the examiners than to variations in the diseases of the populace. Among the first million men examined the draft boards rejected one out of every three. Six months later, when the examiners became more liberal in their interpretation of the standards, only one out of every four was rejected. These facts about the amount of disability in military service are of course less significant for civil life. Although one third or one fourth are unfit to fight, some of these may have practically no handicap in civil life.

It is interesting to note the results in some cases in which the physical examinations were not thorough. In some divisions that served overseas, chronic otitis media was not discovered and, when these men served in inclement weather, hundreds of them developed suppurative otitis media and had to be removed from the trenches. About two thirds of the recruits sent to camp were found to be without noteworthy physical defect. Flatfoot was the greatest defect noted; it was found in nearly one fifth of the men examined. Men from the cities showed about 30 per cent more defective vision than men from the rural districts. Simple goiter was strikingly common in the territory adjacent to the Great Lakes. Tuberculosis was found in exceptional amount in men from Arizona, New Mexico, Colorado and California. If such defects are discovered by periodic examinations and are remedied, the alarming condition exhibited in the World War should certainly be modified.

Any periodic examination that reveals these defects has a tremendous value too in that it would lower the dreadful death rate from motor accidents, now third on the mortality table, if such defects are discovered in applicants for a driver's license.

As causes of death, heart disease and cancer now head the list with tuberculosis seventh. Preventive medicine can be a strong operating force to control these menaces when they are discovered in their earliest stages by the periodic health examination. I have said that the people will in time demand the periodic health examination.

I believe we are making a beginning with the school child. Already a large percentage of parents are educated to the idea of the periodic examination of the school child by the family doctor. As a member and vice president of the Detroit Board of Education, which operates a class A medical school as part of Wayne University, with an enrolment of some 11,200 students, I am familiar with a system that we have instituted there. We request a card index of every school child and on that card is recorded the name of the chosen family doctor. The principal is instructed in case of emergency or illness to notify this doctor by telephone to allow him to get in touch with the child or the family. The teacher and the school nurse are on the alert at all times for defects of temperature, contagious disease, accident or illness and they duly report these to the family. During the past three years 37,348 school children in Detroit

TABLE 2.—*Immunizations, Vaccinations and Tuberculin Tests*

Diphtheria immunizations done as a result of the examination	15.4%
Total immunizations recorded for entering kindergarten and B[1] group	87.0%
Smallpox vaccinations done as a result of the examination	25.7%
Tuberculin tests alone	12.8%
Total of all children given some form of immunization service as a result of the examination by private physicians	37.5%

have been referred to their family doctor for a periodic health examination and the doctors' reports have been sent back to the school.

All children of our sixteen high schools and twenty intermediate schools are tuberculin tested and those who are positive roentgenographed and then referred back to the family doctor, when one is named on the card. The families having family doctors vary according to the economic status. In some schools 71 per cent indicated that they had a family doctor, while in others 22 per cent had a family doctor. We are encouraging those who have no physician to select one and give us the name.

The next step of asking a periodic examination of the school child by the family doctor at graduation from the elementary, intermediate and high schools completes the picture. We have practically eradicated diphtheria from the schools with the Schick test and early diagnosis. We have 265,000 children in the public school system and some 65,000 in the parochial schools who are also cooperating along these lines. Through the school authorities enforcing this card index system, periodic examinations will in time become routine for school children. All family doctors could be called in conference with the principal to discuss matters of school health in their particular locality.

Dr. Don W. Gudakunst of the Detroit department of health has furnished details of the plan which are of great interest and value. The 37,348 children previously mentioned are classified as shown in table 1.

Children, parents and physicians were supplied with an examination blank. These blanks were then returned to school and the information supplied by the physician transcribed to another form together with the name of the examining physician. The original blank was given to the school nurse. Thus the principal, the home room teacher and the nurse all had a record of the child's health condition. None of these children were then examined by the school physician, but follow-up work was done by the nurse, if desired by the child's own physician. As yet an analysis has not been completed as to the amount of corrective work done by the private children examined in this manner, but the indications are that there has been a tremendous increase over anything before known. Certain figures, however, have been compiled (table 2).

The defects noted by the private physicians were in close agreement with the percentages recorded for similar age groups by the school physicians (table 3).

The blanks for 1936 have not been analyzed, but for 1935 there were 1,054 different private physicians, twenty-one osteopaths and thirteen dispensaries that returned these examinations. It is interesting to note that, in addition to these, one "faith healer," four chiropractors and two Christian science practitioners have also filled out these blanks to the best of their ability.

Thus the children are setting an example for the parents. Let the demand for health examinations come from the people, and the vote for the family doctor is back in his lap again. When a patient does submit himself to a periodic examination it must be properly carried out. We must watch for early manifestations of cancer, tuberculosis, circulatory diseases and other diseases that are destroying the race; or again the march of the public will be back to the better advertised clinic, hospital or group where he is satisfied with a standard fee and he knows the cost.

Ten years and more with a horse and buggy and a handle bar single tube tire runabout makes me feel that the general practitioners of the old school kept the reverence and admiration of the people by the milk of human kindness, by work night and day, by friendship in adversity, and by guidance at the bedside when death hovered about. The family doctor was on the job at any hour because he loved it. His compensation came in the satisfaction of work well done and he made a fair living in his community.

He knew his people and their circumstances. He required no social worker or visiting nurse to recommend some other doctor, no board of health to inspect the bedrooms of his patients and measure the cubic feet of air, no inspectors to inspect inspectors, no army of reports for signature, no questionnaires, regulation or regimentation. He led a good life and was often immune to disease. He had no complaints. If Aunt Jane and Grandpa died of cancer, he was looking for it, or for tuberculosis or other hereditary taints without a systematic periodic examination. Many of his kind have passed on, and now the undergraduate has no preceptor for whom he holds, feeds and drives the horses, answers the phone, shines up the office and the instruments, and drives over the hills with the old doctor, who delivers to that young man ethics, therapeutics, case histories and practical practice such as few young men receive as an inspiration today. It is the modern highly educated young general practitioner who must do the periodic examination.

TABLE 3.—*Defects*

	Percentage of children with defects
Cardiac	3.3%
Cervical glands	17.8
Dental	27.2
Hearing	1.4
Nutrition	13.0
Orthopedic	2.2
Tonsils and adenoids (slight)	30.0
Tonsils and adenoids (severe)	11.3
Tonsils removed before examination	17.5
Vision	4.3
Skin	2.6
Speech	0.2
Recommended for open air or open window rooms	2.0
Recommended for other special classes	0.6

The newer family doctor expects more money for his services and he expects it more promptly. It cost him more to become a doctor. Many family doctors are no longer interested in general disease. They have a vision of becoming great specialists and they limit their reading and interest to certain narrow fields like eye, ear, nose and throat, in which one is not expected to know or be interested in anything below an artificial boundary called the "neck." His wife

may step into the picture and tell the neighbors that Bill is taking courses on the eye and he makes no night calls because no man goes suddenly blind at night except by accident and then the industrial surgeon gets him.

Must we have a specialist in periodic examination or will the family doctor rise to this opportunity, if the people demand this service initiated by the school authorities over this great nation? We are told that there are 22,000,000 school children, from 40 to 70 per cent of whom will have a family doctor on the card index.

I believe that the solution of the problem of instituting a popular demand for the periodic health examination will be solved by making an educational health program among the school children more popular. The school authorities, the department of health, the school nurse and the school doctor must cooperate in referring all cases to the family physician. The doctor must in turn provide a definite report of the physical examination for the card index record. If organized medicine will support this method of procedure, the physical defects of the race will succumb to early diagnosis and the various remedies that the medical profession so well understands. When this idea has become popular, the parent will join in and request an examination for himself. The child is father to the thought. The children of today, as parents, will control the destiny of this great nation. By education, therefore, our people will come to seek the periodic health examination, not in fear of disease but for the love of health and their children and the prolongation of life.

62 Adams Avenue West.

Group Hospitalization

NOTE.—*This is the fourth of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

In 1934, according to the Hospital Year Book, there were 263 British contributory schemes, including about 6,500,000 contributors and their dependents, or a total of some 15,000,000 persons. Few of these schemes are self supporting and all have a backing of private gifts and endowments or of public funds. The financial situation was stated by one scheme [13] as follows:

> Although the Contributory Scheme disburses large sums of money to the Voluntary Hospitals, it is as yet unable to pay the full cost of the treatment received by its members. The Voluntary Hospitals are dependent therefore upon the generosity of private subscribers and other sources of revenue for the balance, and further, free treatment is provided continually for a large number of patients who are too poor to join the Contributory Scheme. The Management Committee would like to emphasize this point and to urge the just claims of our splendid Voluntary Hospitals to unstinted support in the efforts they make on behalf of suffering humanity.

Of the actual cost of maintenance to voluntary hospitals, not over 70 per cent is supplied by contributory funds.

Two additional tendencies of these schemes are of interest to the problem here. At the Conference of the British Hospitals Contributory Scheme Association in 1931, it was declared that the schemes were overworking hospital staffs, that the service was deteriorating, and that provision would have to be made to pay the hospital staff.[14] At the same conference it was also stated that "There is no doubt that, by means of the power of the purse, those who manage the schemes will soon start managing the hospitals." It should be noted that none of these schemes are for profit nor do they hire salesmen, but that they are voluntary organizations formed to raise funds for the support of hospitals. Administration, publicity and other operating costs are kept at a minimum and average about 6 per cent of total contributions.

The provident schemes are very similar to the contributory schemes excepting that the income limits are higher and that medical as well as hospital expenses are paid. These plans have but recently been promoted actively and are designed to deal with those persons above the usually recognized income limits. There is a variety of provident schemes—some have no income limits while others do have income limits; some are controlled by hospitals and others are controlled by independent organizations. The rates to subscribers also cover a wide range and the benefits vary accordingly. A rate of about $25 a year for a family with an annual income up to $2,500 entitles each member to three weeks' hospital care at $25 a week, partial payments toward consultation fees and radium treatments, and contributions not to exceed $125 for surgeon's fee. A waiting period of six months before the member is entitled to benefits is a usual provision.[15]

The promotors of group hospitalization plans frequently refer to the British schemes, but the dominating pattern for the hospital plans in this country arose out of the extensive industrial and group payment arrangements so largely peculiar to the United States.

13. Report for 1931, Birmingham Hospitals Contributory Scheme, Carlton House, 28 High Street, Birmingham, p. 13.

14. Proceedings, First Annual Conference, British Hospitals Contributory Schemes Association, September 1931. See also The British Plan, J. A. M. A. **100**: 48 (Jan. 7) 1933.

15. Provident Schemes for Treatment in Private Wards, Central Bureau of Hospital Information, Memorandum 4, London, March 1936.

THE ESSENTIALS OF A GROUP HOSPITALIZATION PLAN

The number of periodic payment plans for medical and hospital care, which have been described, closely simulate the plan of group hospitalization. It is, however, essential to distinguish between these plans and group hospitalization plans. A discussion of group hospitalization cannot be logical if it cites the experiences and operation of a college student health service, a mutual benefit association or a British contributory scheme as comparable to that of a group hospitalization plan. Simply because the prepayment or so-called insurance principle is common to most of these plans is no reason for considering them to be identical. It would be just as logical to compare the experience and operation of casualty insurance with that of life insurance. Confusion in a discussion or analysis of group hospitalization plans can be avoided only by setting aside the several group payment and insurance plans which closely resemble group hospitalization plans and by considering solely those plans which are real group hospitalization plans.

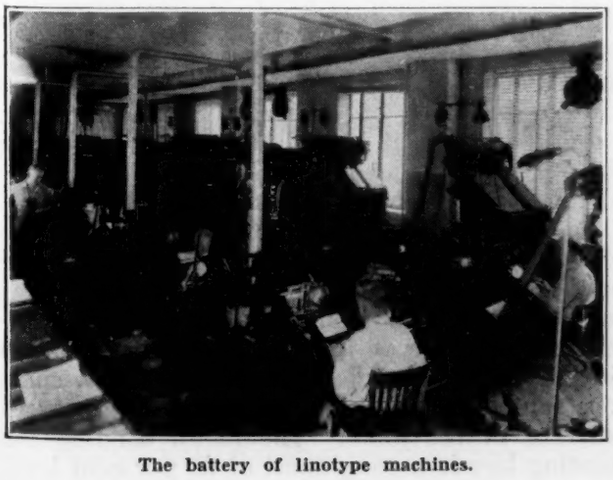
(To be continued)

The Home of the American Medical Association

NOTE.—*This is the twentieth of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

THE COMPOSING ROOM

After a manuscript has been edited in the Editorial Department on the eighth floor, it is taken to the composing room, on the second floor, where it is put into type on the linotype machines. The linotype operators leave the new and possibly hot type on tables. These galleys of type are placed on a small hand press and the first proof is made. The type then is placed in a rack, while the proof goes to the proof room to be read for typographical errors. The corrected proof goes next to the linotype operator, who sets new lines to correct the errors. The corrected lines are inserted in the galleys and a second proof of the paper is "pulled." One copy of this clean proof is mailed to the author of the article and another copy is filed in the proof room. On the author's proof are instructions to read the proof carefully, to make any changes or corrections that are necessary, and to return the proof to the editorial department at his earliest convenience. Usually two or three linotype operators will work simultaneously on one manuscript. While not all the machines carry the same kind of type, all of them are adjustable. The Association has a total of twelve modern linotype machines. All these are in action during both the day shift and the night shift. The great complexity and delicacy of the linotype machines make necessary the services of a machinist to keep them in working order. THE JOURNAL, *Hygeia,* the numerous books published by the Association, the massive American Medical Directory, the special journals and many other printing jobs are all set into type on these twelve machines.



The battery of linotype machines.

Where THE JOURNAL and HYGEIA articles are made up into pages.

The composing room has in all four departments: (1) the linotype operators, (2) the proof room, (3) the advertising composition department and (4) the floor. About sixty-five persons are employed in these four departments, all under the general supervision of the foreman, Mr. William Foley. About twenty persons are employed in the proof room. In the advertising section of the composing room about 50 per cent of all the advertisements published by the Association are set in type by

hand. While the remainder of the advertisements come into the office in plate form, they have to be replated for use on the rotary press. There are about ten men employed in this department, including three on the night shift.

The book department with its many lockup stones.

In the book department of the composing room all the special journals are made up—the *Archives of Internal Medicine, Archives of Surgery, Archives of Ophthalmology, Archives of Otolaryngology, Archives of Pathology,* the *American Journal of Diseases of Children,* the *Archives of Neurology and Psychiatry,* and the *Archives of Dermatology and Syphilology;* also the American Medical Directory, the semiannual volumes of the *Quarterly Cumulative Index Medicus,* the Transactions of the Sections of the Association and the innumerable reprints of articles, as well as the various books published by the Association. The book department employs about twenty men. Some of the men in the composing room have been in the

In this department the advertisements are set. The type frames are in the background.

employ of the Association for many years. For example, Rudolph Langefeld, twenty-nine years; Al Jernek, now in charge of the makeup of the special journals, twenty-eight years; Walter Ziessow, linotype operator, twenty-seven years; William Foley, twenty-six years, and John Willis and Paul Rommel, linotype operators, twenty-five years; Archie LeBeau came as an office boy in 1910, later serving his printing apprenticeship here, and now he is in charge of the advertising department of the composing room; Lenton Williams, Charles Bergsten and Russell McMichael have been in the employ of the Association for eighteen years. The composing room begins work on an issue of THE JOURNAL about two weeks in advance. The original articles in front are made up first, then the current medical literature and the organization section in the back. The editorials, the news and the obituary columns go to press last on Tuesday afternoon preceding the date of publication.

THE PLATE ROOM

After the type is locked up in the chases or forms it is taken to the plate room, which is a separate department on the second floor. The

The large and well lighted proofroom.

chases are placed on a hydraulic press and numerous thicknesses of a special paper, which has been made damp, is placed over the type and a pressure of several thousand pounds, together with heat, brought to bear, thus making in this paper an exact reproduction of the face of the type. This process is called molding. The papier mâché mold is now placed in the casting box, into which molten metal is poured and allowed to cool against the face of the papier mâché mold, thus again giving an exact reproduction of the type in metal. Next the plate is inspected by the finishers and if any low spots are found they are pounded out to the general surface of the plate. The metal used in the casting box is a compound of 80 per cent lead, 13 per cent antimony and 7 per cent tin. About seven or eight tons of this metal is turned over each week in making the numerous plates used for THE JOURNAL, *Hygeia* and other publications of the Association. When the finishers are through with the plate, it is suspended in a large

tank containing a nickel solution for about forty-five minutes for electroplating. During this time there is deposited on the surface of the plate a shell of nickel of about $\frac{1}{2,000}$ inch in thickness. The electroplating process hardens the

A view of the plate room showing the casting box in the foreground.

plate so that it will stand up on the presses for as many as 450,000 copies, whereas not more than 20,000 copies could be run if the plate were used as it came from the casting box; that is, before it was electroplated. The next step in making a plate is to shave it on a precision shaver, for it must be the exact height or thickness that is necessary for the particular printing press on which it will be placed later. For example, if a plate is going on press No. 17, which is the newest large press put into service, it would be shaved to $\frac{178}{1,000}$ inch in thickness. The plate goes next to the beveling machine and its sides are beveled at 35 degrees so it will fit into the plate holders on the cylinder of the big presses. The final process in preparing a plate for the presses is known as "routing." The superfluous metal on the plate is routed out with a special chisel, leaving at the proper height only the surface that is to be printed. THE JOURNAL or *Hygeia* plate forms now leave the plate room and are taken down the freight elevator two floors below to the press room in the basement. The plate room is in charge of Mr. George Demske, who has been with the

Where the plates are nickelplated and finished.

Association ten years. Usually the work of the plate room requires three men; however, when the Directory is being printed, requiring hundreds of plates, the number of men in the plate room is more than doubled. *(To be continued)*

Official Notes

MEDICAL EXHIBITS

May 24-26—Woman's Auxiliary, Medical Society of the State of New York, Rochester. Exhibits on dangers of self diagnosis and medication, patent medicine testimonials, and food fads.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:
May 24—Wilmette Optimists Club, Wilmette, Ill.
May 27—Iowa-Illinois Central District Medical Association, Davenport, Iowa.
June 1-3—National Tuberculosis Association, Milwaukee.
June 10—Kiwanis Club, Atlantic City, N. J.

MR. HOWARD A. CARTER:
May 26—Medical Society of the State of New York, Rochester.

DR. MORRIS FISHBEIN:
June 1—Edison Electric Institute, Chicago.
June 3—Northwestern University, Thorne Hall, Chicago.

DR. CHARLES GORDON HEYD:
May 24—Medical Society of the State of New York, Rochester.
May 27—Lackawanna Medical Society, Scranton, Pa.
June 2—Massachusetts Medical Society, Boston.
June 7—American Medical Association, Atlantic City, N. J.

DR. R. G. LELAND:
May 24, 25 and 26—South Dakota State Medical Society, Rapid City.
June 2-3—Rhode Island State Medical Society, Providence.
June 8—Rotary Club, Atlantic City, N. J.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title Your Health. The topics and speakers for the next three programs are:

May 25. Your Summer Vacation, W. W. Bauer, M.D.
June 1. Keeping Your Baby Well, Paul A. Teschner, M.D.
June 8. Doctors Assembled, W. W. Bauer, M.D.

The time of the broadcast is Tuesday afternoon at 2 o'clock central standard time (3 o'clock eastern time, 1 o'clock mountain time). The Pacific network is no longer included.

Medical Legislation

Medical Bills in Congress

Changes in Status.—S. 1567 has been reported to the Senate with recommendation that it pass, proposing to permit the Bureau of Mines to sell to citizens of the United States or to corporations, under regulations approved by the President, any helium, not needed for government use, that is produced in plants operated by the government or under lease or contract with it for the production of helium. H. R. 6906 has been reported to the House with recommendation that it pass, proposing to regulate the use of cannabis. This bill, among other things, proposes an excise tax of $1 a year on physicians, dentists, veterinary surgeons and other practitioners who distribute, dispense, give away, administer or prescribe cannabis to patients on whom they, in the course of professional practice, are in attendance. Such practitioners are to be required to keep a record of all cannabis dispensed to a patient, showing the amount transferred and the name and address of the patient. This record must be kept for a period of two years.

Bills Introduced.—H. J. Res. 339, introduced by Representative Hill, Alabama, proposes to grant permission to Dr. George E. Ijams, assistant administrator of the Veterans' Administration, to accept and wear the decoration of the Order of the French Legion of Honor bestowed on him by the republic of France. S. 2404, S. 2405 and S. 2406, introduced by Senator Schwellenbach, Washington, propose, respectively, to construct a hospital on the Tulalip Indian Reservation, Washington, at Marietta, Wash., for the Lummi Indian Reservation, and at La Conner, Wash., for the Swinomish Indian Reservation. S. 2388, introduced (by request) by Senator Ashurst, Arizona, proposes to increase the punishment of second, third and subsequent offenders against the narcotic laws. S. 2389, introduced (by request) by Senator Ashurst, Arizona, proposes to provide for the seizure and forfeiture of vessels, vehicles and aircraft used to transport narcotic drugs, firearms and counterfeit coins, obligations, securities and paraphernalia. H. R. 6650, introduced by Representative Crawford, Michigan, proposes to provide for the cooperation of the Social Security Board in the identification of certain deceased persons. H. R. 6918, introduced by Representative Disney, Oklahoma, proposes to regulate traffic in narcotics and liquor among the Osage Indians. H. R. 7020, introduced by Representative Thomason, Texas, proposes to authorize an appropriation of $1,000,000 to erect a veterans' hospital in Texas, for the diagnosis, care and treatment of general medical and surgical disabilities.

District of Columbia

Changes in Status.—H. R. 5142 has been reported to the Senate, providing for the issuance of a license to practice the healing art in the District of Columbia to Dr. William Hollister. H. R. 6696 has been reported to the House, proposing to amend the healing arts practice act of the District by repealing the time limitation within which persons licensed prior to the effective date of the act were required to apply for a new license under the act.

Florida

Bills Introduced.—H. 253 proposes to repeal the present law regulating the practice of naturopathy and to enact in its stead a new naturopathic practice act. The bill proposes to define naturopathy as "the use and practice of psychological, mechanical and material health sciences to aid to purifying, cleansing and normalizing human tissues for the preservation or restoration of health, according to the fundamental principles of anatomy, physiology and applied psychology, as may be required." The bill also states that naturopathic practice "employs, among other agencies, phytotherapy, dietetics, psycho-therapy, suggesto-therapy, hydro-therapy, zone-therapy, biochemistry, external applications, electro-therapy, mechano-therapy, mechanical and electrical appliances, hygiene, first aid, sanitation and heliotherapy." Nothing in the bill is to authorize any naturopathic "physician" to practice materia medica or surgery or chiropractic. H. 474 proposes to create a board of massage examiners and to regulate the practice of massage. The bill provides that "massage" means "the use and practice of Psychological, Mechanical and Material Health Sciences, to aid in purifying, cleansing and normalizing human tissues, for the preservation or restoration of Health, according to the fundamental principles of anatomy, Physiology, and applied Psychology, as may be required. Massage practice employs, among other agencies, Phytotherapy, Dietetics, Psycho-therapy, Suggesto-therapy, Hydro-therapy, Zone-therapy, Bio-chemistry, external applications, Electro-therapy, Mechanotherapy, Mechanical and Electrical Appliances, Hygiene, first aid, Sanitation, Heliotherapy, Spinal Manipulation and Manual Bodily manipulation." H. 570 proposes to require, as a condition precedent to the issuance of a license to marry, a physician's certificate that neither party to the proposed marriage is epileptic, insane or feebleminded and both are free from pulmonary tuberculosis or a venereal disease in a communicable state. The bill proposes to limit a physician's fee for making the requisite examination and executing such a certificate to $2. H. 872 proposes to require, as a condition precedent to the issuance of a license to marry, the presentation of a physician's certificate that both parties to the proposed marriage are free from venereal disease "so nearly as can be determined by a thorough examination and by the application of the recognized clinical and laboratory tests of scientific search, when in the discretion of the examining physician such clinical and laboratory tests are necessary." The bill would limit the fee of a physician for such an examination to $5. H. 1068 proposes to require a licensed practitioner of the healing art to place or keep in a conspicuous place, at each entrance to his office or usual place of business, words or proper abbreviations denoting the particular kind or branch of the healing art he is licensed to practice.

New Hampshire

Bill Introduced.—S. 98 proposes to repeal the laws regulating the possession and distribution of narcotic drugs and to enact what appears to be the uniform narcotic drug act.

New Jersey

Bills Introduced.—A. 534 proposes to require the board of education of each school district to provide at least once a year for the conducting of eye and ear tests of pupils under its jurisdiction. A. 530 proposes to establish a bureau of narcotic control, to be headed by the commissioner of narcotic control. The commissioner, with the approval of an advisory board of four members to consist of a member of the medical society of the state of New Jersey, a member of the New Jersey state pharmaceutical association, a member of the dental society of the state of New Jersey, and a member of the New Jersey state veterinary medical society, is to be authorized to make all needful rules, regulations and determinations to effectuate the purposes of the laws regulating the possession and use of

narcotic drugs. Every person who produces, compounds, dispenses, sells or distributes any narcotic drugs must register annually with the bureau of narcotic control.

Pennsylvania

Bill Introduced.—S. 1213, to amend the osteopathic practice act, proposes, in effect, to authorize the osteopathic surgeons' examining board to "cause the Department of Public Instruction to grant and issue a license to practice operative surgery . . . to any person or persons licensed to practice and engaged in the practice of osteopathy in the state of Pennsylvania having passed the examination in surgery and other required subjects under the act approved the seventeenth day of May one thousand nine hundred and seventeen and prior to the enactment of the act approved the fourteenth day of June one thousand nine hundred and twenty-three after payment of the required fee and without further examination upon presentation of documentary evidence by such person or persons of having served either an interneship of one year or as an assistant surgeon for two years in a hospital recognized by the Osteopathic Surgeons' Examining Board."

Tennessee

Bill Introduced.—H. 1111 proposes to grant to hospitals treating persons injured through the negligence of others liens on all rights of action, claims, judgments or compromises accruing to the injured persons because of their injuries.

Woman's Auxiliary

Oregon

A meeting of the board of the Woman's Auxiliary to the Oregon State Medical Society was held in Portland, February 9.

The Clatsop and Tillamook Auxiliary is working on the history of medicine in Clatsop County and is taking care of families in need.

The Jackson County Auxiliary, with 100 per cent membership, has prepared a typed folder, listing officers and committees for 1937, together with detailed programs for each meeting. Topics discussed were "Guiding the Adolescent," "The Problem of Socialized Medicine" and "Quackery." At each meeting, time was allowed for the discussion of current events in medicine and for reports from *Hygeia.*

Klamath and Lake Auxiliary held its annual dinner meeting with the medical society, at which time reports of the state convention were given. At another meeting, health education was discussed; and at the spring meeting gardening, with special reference to health, was the subject. A history of medicine in Klamath and Lake counties is being compiled.

Lane County has held six meetings during the year. A fund of $72 was donated to the Red Cross for flood relief.

Multnomah County Auxiliary, with a membership of 125, has held regular monthly meetings and ten study group meetings, with programs on medical subjects. A year book has been compiled, which gives the programs and a list of members. Through the public relations committee 10,000 copies of the November programs for the American Medical Association radio broadcast were printed and distributed to public school nurses, parent-teachers associations, health clinics, hospitals and individuals. Two hundred study envelops were given out to the parents of children in public schools. A public relations tea, to which presidents and women of the women's clubs were invited, was held. At this time Dr. J. Hudson Ballard spoke on "Psychology and Mental Health." More than $85 was raised for the Student Loan Fund by the sale of tickets to the Louis Pasteur movie. One hundred and nine subscriptions to *Hygeia* were placed in the public and parochial schools. Philanthropic work has consisted of gifts to the Albertina Kerr nursery, aiding the work of the Doernbecker Hospital, helping in the sale of Christmas seals and Red Cross memberships, supporting the junior auxiliary, and arranging meeting places for the medical student history group. The auxiliary is planning to have an essay contest on *Hygeia* through the schools. A survey of the 109 schools to determine the use and value of *Hygeia* to the schools will be conducted. Auxiliary meetings are held at the Medical-Dental auditorium.

Polk, Yamhill and Marion counties, aided by the medical society, has sent sixty-five six months subscriptions, which supply the schools of the counties, and eight yearly subscriptions for that number of public libraries. Educational programs have been given on "The Problem of the Abnormal Child," "The Plague in Oregon," "Nutrition," "Nutrition and Its Relation to Posture," "Physical Therapy," and "Studies in X-Rays."

West Virginia

The Cabell County Auxiliary held no meeting in February because of flood conditions. Many of the members of the West Virginia Auxiliary worked untiringly during this time of peril and have greatly assisted in the process of rehabilitation. At the March meeting of the Cabell auxiliary, Dr. W. F. Beckner spoke on "Conservation of Vision." Two of the illumination engineers of the electric power company demonstrated manufactured developments in improved home lighting which help to prevent eyestrain.

The Fayette County Auxiliary met at the home of the county president, with Miss Laura Burrow, public health nurse of Fayette County, giving an instructive lecture on public health work. One of the members reviewed "Victims of Advice" from *Hygeia.*

At the Harrison County Auxiliary meeting in February, Dr. M. E. Farrell spoke on "Child Welfare in Relation to the School Child." One of the members reviewed "Cosmetic Care of the Skin" from *Hygeia* and also an editorial on "Cancer" from THE JOURNAL. At the March meeting Mrs. A. H. Stevens, state president, gave an interesting paper on "Every Man His Own Doctor," taken from a very old medical book.

At the February meeting of the Kanawha County Auxiliary, Dr. H. W. Angell spoke on "Conservation of Vision" and one of the members reviewed *Hygeia.*

Dr. S. B. Lawson spoke on "The Early Practice of Medicine in Logan County" at the February meeting of the Logan County Auxiliary and on "Mothers" at the March meeting. The group made a contribution to the Salvation Army for relief of flood refugees.

Dr. Rush Lambert and Mrs. C. L. Parks spoke on current legislative topics of interest to the medical society at the last meeting of the Marion County Auxiliary. Dr. W. S. Fulton of Wheeling was a dinner guest and spoke briefly on some of the phases of medical economics.

At the McDowell County Auxiliary notes of thanks from the principals of schools receiving *Hygeia* through the auxiliary were read.

Mrs. S. M. Prunty, past president of the state auxiliary, discussed auxiliary activities, past and present, at the last meeting of the Wood County Auxiliary.

The Boone County Auxiliary has been organized during the present year.

Medical Economic Abstracts

MATERNITY IN ITS SOCIOLOGICAL ASPECTS

Sir Henry Brackenbury, in an address to the New York Medical Society, published in the *British Medical Journal* (2:828 [Oct. 24] 1936), emphasizes the fact that the "net reproduction rate," which "means that every mother will be replaced by another mother and no more," is now probably well below unity in almost every part of Western civilization. If this rate remains and other relevant factors do not change, the population of Great Britain in thirty years will be about 33,000,000, and by the year 2100 some 10,000,000, or about the population of Greater London today.

Birth control propaganda is criticized on the ground that it is entirely wrong, or at least very unsafe, to assume that the possession of a moderately large family must be socially or economically disadvantageous or that unemployment varies in amount relatively to the size of the population. The science of genetics has not yet advanced so far as to enable us to determine in more than a few cases what disadvantageous characteristics will be manifested by a particular offspring or what will be the exact requirements of such offspring in future states of society.

The immediate and grave menace to this country in particular and to Western civilization in general is underpopulation, not overpopulation. The effects of social environment are so powerful that they easily mask those of heredity. There is no convincing evidence that the children of the poorer classes are inherently of inferior stock; there is no excessive fertility among those of low intelligence, and the death rate among low grade children is higher than that among others. Mental deficiency is of multiple origin. The dependence on recessive genes and the coincidence of several such genes is so great that it would require the sterilization of every mentally deficient person in every generation for at least 2,000 years to produce any considerable effect on the incidence of mental deficiency. There is no reason for sterilization on the ground alone that he or she is likely to be an imperfect parent.

Maternity is thus a subject of prime importance to the individual mother and to society at large. Much of the discussion of maternal mortality in Great Britain is based on fallacies. So long as human nature remains as it is, it will never be possible to avoid every error of judgment on the part of every person concerned in childbirth. Therefore, while the frequently quoted statistics offer no reason for panic or alarm, there is every reason for anxiety and action. The question still remains whether, however important administrative and clinical factors may be, the main explanation of local differences in mortality may not yet be found in those biologic, physical, dietetic, sociological, even psychologic factors which so far appear to have received insufficient attention.

The effects of inadequate diet on the mother and the offspring are manifold. The diet actually required is simple but relatively expensive for those of very limited means. None of these things, properly speaking, are the prime responsibility of the medical profession, although good obstetrics is, of course, the first essential. The state, intimates Dr. Brackenbury, has tackled the problem of the provision of a national maternity service in a half-hearted, piecemeal and mistaken fashion. It has set up qualifications for a craft of midwives and encouraged local authorities to establish clinics or centers for the examination of pregnant women and the giving of antepartum advice. While these services, severally and collectively, have had a considerable, though limited, usefulness, it has become clear that none of them have produced the effect for which they were designed and that their total combined influence has not resulted in a reduction of the maternal mortality rate in this country. On the contrary, the multiplication of antepartum clinics and their greatly increased use by mothers during the last few years, and the much larger number of confinements that during the same period have been conducted in hospitals in certain towns, have been accompanied by a rise in the maternal mortality rate. There has been no unity, no necessary coordination among these measures. All available evidence demonstrates conclusively that normal confinements, and those that show only minor departures from the normal, can be and are conducted as safely at home as in a hospital.

Maternity is not to be regarded as an event in a woman's life marked off from all that has gone before or that is to come after. Not only should the medical responsibility for maternity be continuous with that for other periods, but it should be continuous during the whole period of maternity itself.

The British Medical Association has set out medical requirements of a woman during maternity as follows:

1. Medical supervision throughout by the doctor of her choice, with specialist and hospital aids where needed.
2. Efficient nursing and advice by a skilled midwife or maternity nurse of her choice.
3. Provision of help in her house during the period of her actual incapacity.
4. Supply of dressings, special apparatus or means of transport when required.

PHYSICIANS WITH THE W. P. A.

Further information as to the effect of the depression on physicians is furnished in a report of the Works Progress Administration on the "Usual Occupations of Workers Eligible for Works Program Employment in the United States, January 15, 1936." Physicians, surgeons and dentists are combined in this report. There is no statement as to the medical credentials of those who were designated as physicians, surgeons and dentists; it is impossible to tell how many of these were actually engaged in their professions at the time the classification was made. The report states that "usual occupation was defined as that occupation at which the person worked longest during the ten years preceding the time of filling the record card." The accompanying table shows the numbers given in the report, classified by states.

Physicians, Surgeons and Dentists on W. P. A. Lists Jan. 15, 1936

Alabama	11	Nevada	4
Arizona	6	New Hampshire	1
Arkansas	5	New Jersey	82
California	133	New Mexico	1
Colorado	31	New York	410
Connecticut	9	North Carolina	5
Delaware	1	North Dakota	1
District of Columbia	3	Ohio	42
Florida	14	Oklahoma	3
Georgia	18	Oregon	8
Idaho	2	Pennsylvania	49
Illinois	38	Rhode Island	1
Indiana	2	South Carolina	12
Iowa	5	South Dakota	2
Kansas	6	Tennessee	2
Kentucky	4	Texas	8
Louisiana	35	Utah	1
Maine	1	Vermont	4
Maryland	3	Virginia	11
Massachusetts	108	Washington	13
Michigan	8	West Virginia	..
Minnesota	25	Wisconsin	30
Mississippi	24	Wyoming	1
Missouri	21		
Montana	3	TOTAL	1,218
Nebraska	11		

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, MAY 29, 1937

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GROUP HOSPITALIZATION

NOTE.—*This is the fifth of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

Group hospitalization, by its very name, connotes that the relationship is one of direct arrangements between hospitals and groups and that the use of hospital facilities alone is the service bargained for. Group hospitalization, then, is a plan whereby a hospital or an association of hospitals contracts with classified groups of persons to furnish hospital care when needed in return for the periodic payment or prepayment of a stipulated sum by every member of the group. A bona fide group hospitalization plan should exclude all professional or medical services of physicians or surgeons, pathologists, roentgenologists, physical therapists, anesthetists and special nurses. Strictly speaking, these plans should deal only with groups of a homogeneous nature (teachers, department store employees, transportation employees, and others) to lessen the problems of collecting subscriptions and securing the enrolment of good risks. However, if a sufficiently large number of individuals can be secured, they are frequently enrolled as a special group at a slightly higher rate.

The principles essential to an effective group hospitalization plan were outlined in a report of the experience of an early plan as follows: [16]

1. Organization must deal with groups, not with individual risks.

2. Groups must be employed, full-time wage earners. Intermittent employment, such as teaching, nursing, etc., brings much higher actuarial risk.

3. The total number of members—spread in all groups to make the law of averages safely apply—should be at least 3,000 to 5,000.

4. Group hospitalization should give only *hospital* service and should not in any case give service that in any way competes with the physician's professional service. You have to depend on your medical staff to protect the hospital from malingering of patients. We have had no loss on this score.

5. We allow the patients belonging to groups full liberty of choice as to the physician treating him in the hospital.

6. A long-time commitment to a fixed rate should be avoided. One of the best by-products of such group policy is that coming to the hospital with the bill already provided for educates patients to be hospital-minded and will increase hospital patronage and eventually bring a higher rate.

7. Different types of employed groups present varying actuarial risks as to sickness and differing desires as to the types of accommodations. For instance, bank employees are better actuarial health risks than laundry employees, but desire better accommodations, so we make the same rate for both groups but contract for different accommodations for each group.

8. In our own hospital we have definitely adhered at all times to the policy of dealing directly with the groups through the employer or other representative, and we have never employed any outside selling organization or middleman representative. We feel that this is far the safer course.

It should be observed that particular emphasis was placed on such matters as the preference for group risks, desirability of full time employment of members and a minimum number of members, hospital service only, freedom of choice, no fixation of rates or provisions, allowances for different actuarial risks, and no intervening third party.

Perhaps the best method of explaining the bases on which the group hospitalization plan is founded would be to follow a schematic outline of a fictitious plan, as follows: (1) expected enrolment, (2) expected hospitalization, (3) expected costs.

Enrolment estimates are based primarily on the number of gainfully occupied persons in the

16. Kimball, J. F.: Group Hospitalization, Tr. Am. Hosp. A., 33d Annual Convention, Toronto, Canada, 1931, p. 667.

community. While the estimates of the proportion of employed groups that will be enrolled vary all the way from 6 to 50 per cent, it is estimated that about 10 per cent will become subscribers (the enrolment of dependents will not be considered, for the sake of simplicity). For a community of 100,000 employed persons it would therefore be estimated that 10,000 persons would subscribe to the plan.

The expected hospitalization will necessarily vary according to the benefits and limitations of the contract and the type of community, but it is generally accepted that about one patient day per member annually will be the hospitalization experience. Accordingly, it is expected that about 10 per cent of the membership will be hospitalized for an average stay of ten days. In other words, for the membership of 10,000, about 1,000 persons would be hospitalized for a total period of 10,000 days each year.

In the determination of the costs, a flat sum of, say, $6 per member is estimated to be adequate to pay for the average patient day cost, including allowances for bed and board, operating room, anesthetic, routine laboratory services and routine medicines; $3 per member is allowed for the cost of administration, sales and reserves, and a $1 enrolment fee is charged for initial recording or to cover promotional expenses. The total cost to the subscriber, for the first year, would be $10.

Under the fictitious plan, then, the income from the 10,000 subscribers would be $100,000. The expected costs of hospitalization would be $60,000 ($6 per patient day for 10,000 days). The difference between this anticipated liability and the total revenue, or $40,000, would be available for all other costs. Roughly, the administrative costs are expected to be 10 per cent of the total income and the promotional and sales costs 20 per cent, or a total of $30,000. Finally, the remaining $10,000 would be utilized to create reserves and a surplus.

In an abruptly simple form, these are the fundamental factors on which the group hospitalization plan is based. No one plan would be organized exactly according to the method outlined, but, while the percentages would vary or the costs might be allocated in a different proportion, each group hospitalization plan is formulated approximately on the bases indicated.

Even within this more uniform concept of what a group hospitalization plan is, there seem to be four different types of plans: (1) single hospitals not employing sales agencies, (2) noncommercial associations or groups of hospitals not employing sales agencies, (3) a sales agency contracting with a single hospital, and (4) commercial associations or sales agencies contracting with several hospitals.

(To be continued)

"Cooperative Medicine"

To the Editor:—As a physician I am concerned about two articles appearing in the April 3 issue of THE JOURNAL. One is on "Cooperation and Medical Service" and the other, an editorial, is on "Cooperative Medicine."

The first of these discusses cooperation in general. The article contains statements which are not correct, it misinterprets the facts which it presents, and it appears to have been written by an author who has not informed himself sufficiently to give the reader a correct idea of the subject.

Conservative publications carry articles on this subject and give their readers a fair understanding of Cooperation. *Harpers, Scribners, Time,* the *Literary Digest,* the New York *Times* and practically all the high class periodicals are publishing such informative articles. In a scientific publication such as THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, an accurate statement of facts should be expected.

You are not well advised in publishing the statement that cooperative principles cannot be reconciled with medical service. The facts show that they are particularly adapted to just this field. The assertion that the cooperative method imposes the middleman between the doctor and the patient is not correct. It is true that this is done by insurance companies, railroads and many other businesses which employ physicians in good standing in the American Medical Association. The cooperatives are not sympathetic to the middleman method. In cooperative medicine, the patients themselves employ and pay the doctor for his service. There is no middleman. No one exploits either party.

If only the sick in the cooperative society sent for the doctor and paid for his services, you apparently would not object. What you find wrong is that the well also make their contribution toward the doctor's pay. But this is the most effective way by which preventive medicine may be made practical and brought to the service of patients in general.

As to the statement concerning prepayment for medical services, I still hold my profession in such high esteem that I refuse to believe that the competent physician will render better service when his pay is withheld until after the service is rendered, and that if he already has his pay in his hand his treatment will become mechanical and neglectful. The doctor of whom this can be said has no place in the medical profession. It is to be regretted that medical men in high places cast this slur on our profession.

J. P. WARBASSE, M.D., Brooklyn.

COMMENT.—Dr. Warbasse states that the article in THE JOURNAL appears to have been written by an author uninformed on the subject. Actually the article was prepared by a writer who has been in close touch with the cooperative movement for many years and who has studied cooperatives in six foreign countries and who has been associated with at least two cooperatives in this country. The letter which he submits does not indicate any misstatements of fact in the material published in THE JOURNAL. It indicates rather that cooperatives have merely availed themselves of medical service as any other type of industry or organ-

ization might do under a system of contract practice. There seems to be no good evidence that patients actually do themselves employ and pay the doctor for his service in cooperative medicine. In his own book "Cooperative Democracy," Dr. Warbasse, on page 242, describes a system of medical care in which under no circumstances is there maintained a direct patient-physician relationship.

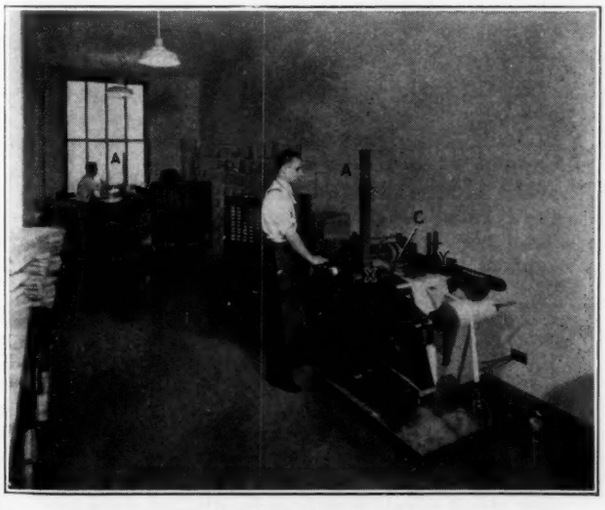
THE JOURNAL'S objection to the cooperative system was not on the basis that the well also make their contribution toward the doctor's pay. It was based on the fact that cooperative schemes differ in no essential way from the numerous prepayment contract schemes operated by industries, groups of physicians and others. It is not clear how the scheme proposed by Dr. Warbasse differs in any essentials from a system of voluntary sickness insurance. Certainly there is no good evidence that such a system makes preventive medicine practical and applicable to the vast majority of those involved.

The Home of the American Medical Association

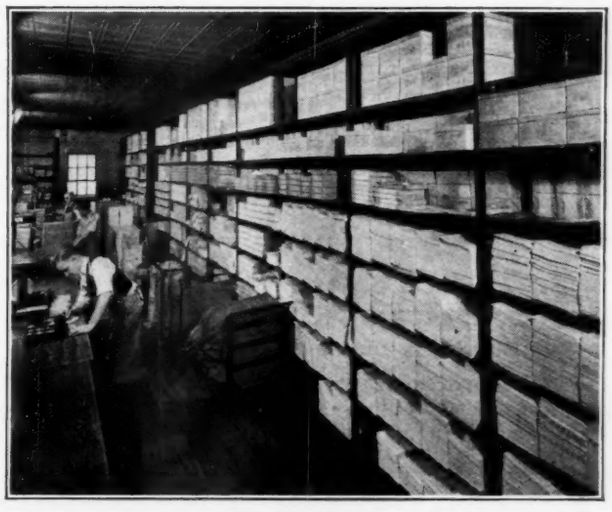
NOTE.—*This is the twenty-first of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

THE ADDRESSING ROOM

The mailing lists for THE JOURNAL and *Hygeia* and other periodicals published by the Association are made on the two machines shown in the accompanying illustration. These machines also address the hundreds of thousands of envelops for the circular letters that are sent out. The two rectangular metal boxes on wheels shown in the illustration contain under the name of cities and towns thousands of thin metal plates on which are the names and addresses of subscribers. The metal plates are placed in proper order in the tall uprights on the machines, labeled *A*. With the machine in operation a metal plate slides across the machine from *X* to *Y* and as it passes the point *C* a trip hammer forces it against the paper, which is moving beneath the plate, thus stamping the address on the wrapper. This machine also cuts the paper into the proper lengths for wrappers. The smaller machine on the left is preparing the mailing list for THE JOURNAL on a continuous roll of narrow yellow paper. These rolls, with the addresses arranged in proper order for mailing, are sent to the first floor, where the mailers run them through a small hand machine, with which they are mucilaged and stamped on the wrapper of the periodical that is being mailed. The plates are arranged so that copies for subscribers receiving THE JOURNAL at the same station in a large city can be mailed in one bundle of about twenty rather than as twenty separate copies. When this bundle reaches a large city or a subpostal station, it is opened by the local postmaster and the individual journals are distributed. The numerous changes of addresses of subscribers are received daily in the addressing room on slips from the subscription department in the room adjoining. From these slips new metal plates are stamped out and placed in their proper place in the subscription list.



The addressing room.



The stock room.

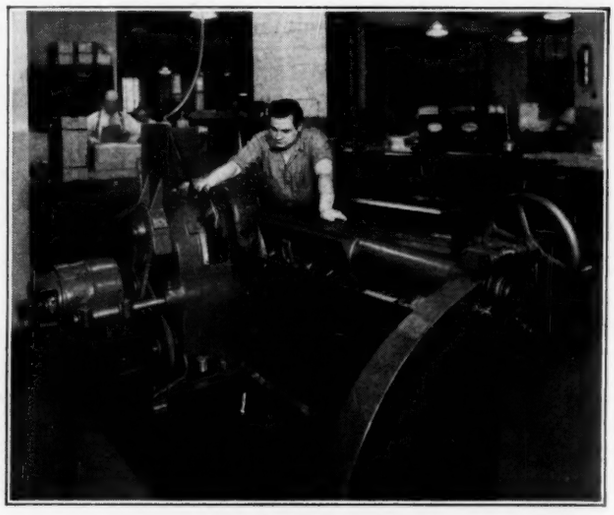
THE STOCK ROOM

The main stock room occupies the entire east end of the second floor of the annex building. The portion of the stock room shown in the illustration comprises only about one twelfth of all the room used for this purpose, as some of the stock is kept on the fourth floor. In the stock room are kept books, pamphlets, charts and posters published by the Association; also the automobile emblems and back copies of all the periodicals. The work done in this department comprises filling the orders for these items.

It amounts to about 70,000 different orders a year and makes in all about 175 tons of mail. These 70,000 orders are wrapped, weighed, stamped and placed in mail bags in the stock room, from which they go direct to the post-office. Three men do this work under the supervision of Mr. Benjamin Bruce. On the shelves in the illustration can be noticed stacks of copies of back issues of THE JOURNAL. An effort is made to keep in stock copies of back issues of all periodicals published by the Association for the last twenty years. There are, however, some issues of the various periodicals that have been completely sold out.

THE GRINDING MACHINE

The grinding machine sharpens the 24 inch knives used in the trimmers. A dulled knife is fastened at the proper angle on the carriage of this machine, which then moves back and forth so that the bevel of the knife passes against an emery wheel beneath the cover on which the right arm of the attendant in this picture is resting. With the wheel, which he grasps with his right hand, the knife is adjusted to the emery wheel. Three of these large knives are used in the trimmer for THE JOURNAL. One sharpening is sufficient for trimming about 30,000 copies, the exact number depending on the thickness of THE JOURNAL and the kind of paper stock that is used in its makeup. The trimmer with three knives trims three sides



The grinding machine.

at a time of a bundle containing about twenty journals. There are three other trimmers with single knives which are used for trimming the flat stock. *(To be continued)*

Official Notes

THE ATLANTIC CITY SESSION

Broadcasts During the Annual Meeting

Radio broadcasts in connection with the meeting of the American Medical Association at Atlantic City have been arranged as follows:

NATIONAL BROADCASTING COMPANY NETWORK

Monday, June 7—6 to 6:15 p. m. Dr. Charles Gordon Heyd, New York, President, American Medical Association. "Your Doctor and Your Health." (Red.)

Thursday, June 9—6:15 to 6:30 p. m. Dr. W. W. Bauer, Chicago, Director, Bureau of Health and Public Instruction, American Medical Association. "Convention News and Highlights." (Blue.)

COLUMBIA BROADCASTING SYSTEM NETWORK

Monday, June 7—4 to 4:15 p. m. Dr. J. H. J. Upham, Columbus, Ohio, President-Elect, American Medical Association. "Medicine and the Public."

Thursday, June 10—4 to 4:15 p. m. Dr. W. W. Bauer, Director, Bureau of Health and Public Instruction, American Medical Association. "Your Doctor Keeps on Learning."

The time noted is eastern daylight saving time. Eastern standard time is one hour earlier, central standard time two hours earlier, mountain time three hours earlier and Pacific time four hours earlier.

A MESSAGE FROM THE LOCAL COMMITTEE

PULSE AND RESPIRATION—RAPID:

It's nothing, doctor; just that we're so pleased and proud—and a little excited—at being your hosts again.

NO PSYCHIATRY, PLEASE:

Don't diagnose us wrong, doctor! This elation, complete with smile and handshake, is genuine. We *are* glad you're here! You *are* mighty welcome!

CONSULTATION:

We're at your service twenty-four hours daily—Ask us anything!

In fact, we've anticipated and have put answers to some obvious questions into a—

PRESCRIPTION FOR A PERFECT CONVENTION:

1. Begin by probing. Get a clear history of your hotel rate and plan, when you register. "American" is hotelese for "with meals"; "European" is "without meals."

2. No cash-ectomy necessary. Standard taxicab rates are 50 cents for one or two persons between 100 block and 5700 block, 10 cents for each additional person. Standard rolling chair rate, 75 cents an hour or less for one or two persons, $1 for three; special A. M. A. service to and from Auditorium, 50 cents for one, two or three with no stopover privileges. Jitneys on Pacific Avenue, first street paralleling boardwalk—10 cents between 100 and 4800 block, 10 cents additional for short trips up or down side streets. Trolley, two blocks from Boardwalk, runs length of island, 7 cent fare.

EPIDEMIC:

The whole city has the A. M. A. Welcomitis. Severest cases are among local medical men and their wives—your personal hosts. We've been isolated with armbands reading "Host," which interprets as "Nothing's Any Trouble." We're eager to be of service, so call on us, or phone 4-1211 for anything, including bail.

THE LOCAL COMMITTEE ON ARRANGEMENTS.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:
June 1-3—National Tuberculosis Association, Milwaukee.
June 4—Rotary Club, Winnetka, Ill.
June 7—American Academy of Tuberculosis Physicians, Atlantic City, N. J.
June 10—Kiwanis Club, Atlantic City, N. J.

DR. WILLIAM D. CUTTER:
June 15—Catholic Hospital Association, Chicago.

DR. MORRIS FISHBEIN:
June 1—Edison Electric Institute, Chicago.
June 17—Knife and Fork Club, Joplin, Mo.

DR. CHARLES GORDON HEYD:
June 2—Massachusetts Medical Society, Boston.
June 7—American Medical Association, Atlantic City, N. J.

DR. R. G. LELAND:
June 2-3—Rhode Island State Medical Society, Providence, R. I.
June 8—Rotary Club, Atlantic City, N. J.

MEDICAL EXHIBITS

May 29—Opening day, Great Lakes Exposition, Cleveland. A group of seven exhibits on health.
June 7-11—American Medical Association, Atlantic City, N. J.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title Your Health. The topics and speakers for the next two programs are:

June 1. Keeping Your Baby Well, Paul A. Teschner, M.D.
June 8. Doctors Assembled, W. W. Bauer, M.D.

The time of the broadcast is Tuesday afternoon at 2 o'clock central standard time (3 o'clock eastern time, 1 o'clock mountain time). The Pacific network is no longer included.

The series of broadcasts under the title Your Health will be discontinued after June 8. Announcement of the new radio plan for the fall and winter season will be made in THE JOURNAL and in *Hygeia* well in advance of the first broadcast.

Medical Legislation

Medical Bills in Congress

Bills Introduced.—S. 2456, introduced by Senator Lee, Oklahoma, proposes to provide for federal service medals of honor to government employees for distinguished service rendered to humanity at the voluntary risk of life or health over and above the ordinary risks of duty. S. 2463, introduced by Senator Sheppard, Texas, proposes to authorize an additional number of medical and dental officers for the army. H. R. 7082, introduced by Representative McGrath, California, proposes to authorize an appropriation of $1,000,000 to construct additional facilities at the existing Veterans' Administration facility at Palo Alto, Calif., for the care and treatment of general medical and surgical disabilities. H. R. 7134, introduced by Representative Mills, Louisiana, proposes to amend the Social Security Act "to enable the several states to make more adequate provision for disabled persons."

District of Columbia

Changes in Status.—H. R. 5110 has been reported to the House with recommendation that it pass, providing for the issuance of a license to practice chiropractic in the District of Columbia to Russell V. Pemberton. H. R. 6869 has been reported to the House with recommendation that it pass, proposing to regulate the practice of cosmetology and to provide rules regulating the proper conduct and sanitation of cosmetological establishments and schools.

Florida

Bills Introduced.—S. 811, to amend the law requiring all practitioners of the healing art to register annually, proposes that proof that a practitioner of the healing art has failed to display conspicuously in his office his annual registration certificate shall be prima facie evidence in any civil or criminal action that that practitioner is practicing the healing art without a license to do so. S. 812 proposes to require, as a condition precedent to the issue of a license to marry that both parties to the proposed marriage present a physician's certificate that they are not epileptic, insane or feebleminded and are free from pulmonary tuberculosis or venereal disease in a communicable stage. S. 917 proposes to impose an annual occupational tax of $10 on each practitioner of the healing art. H. 1428 proposes to authorize "every practicing physician in the state of Florida duly licensed as such under the laws of this state. . . . to compound and fill prescriptions written by him in his practice, from a drug store or apothecary shop owned and operated by such physician."

Michigan

Bill Introduced.—H. 614 proposes to authorize the state commissioner of health "to incur not to exceed seventy-five dollars to be used for prenatal, hospital and medical expenses for each mother and baby born in wedlock in the state of Michigan." The bill proposes that such grant of aid is not to be conditioned on the financial ability of the parents but is to be granted to assist in bringing to a high standard the care of mothers and babies in the state.

Pennsylvania

Bill Introduced.—S. 1309 proposes to require, as a condition precedent to the issue of a license to marry, that each party to the proposed marriage present a physician's certificate as to freedom from venereal diseases.

Tennessee

Bills Introduced.—H. 1191 proposes to enact a law to provide safeguards for occupants of schools, hospitals and institutional buildings against loss of life or injury due to fire or panic. Among other things, the bill proposes that all buildings used for hospital purposes, and buildings housing bedridden patients, two stories or more in height, that are not constructed entirely of fire resistive materials, shall be equipped with one fire escape for every twenty-five beds or fractional part thereof above the first floor. Such buildings must have stairways not less than 4 feet wide, with a clear width of platforms at all turns not less than 8 feet wide by 6 feet long, a tread not less than 10 inches, and a riser not more more than 6¾ inches, for every twenty-five beds above the first floor. H. 1218 and S. 916 propose to repeal the laws regulating the possession and distribution of narcotic drugs and to enact in their stead what appears to be the uniform narcotic drug act.

Woman's Auxiliary

New Jersey

The Atlantic City Auxiliary is making arrangements for the entertainment of the annual meeting of the Woman's Auxiliary to the Medical Society of New Jersey, which will convene in Atlantic City April 27-29, and for the national meeting, which will also convene there June 7-11.

The art and hobby exhibit, which is being prepared for the state meeting, will contain instruments, medical curiosities or antiques, photographs, pamphlets, documents, books, records and biographies pertaining to medical history.

At the request of Mrs. V. E. Holcombe, the national program chairman, the New Jersey Auxiliary has distributed the radio program announcements of broadcasts given by the American Medical Association. The state president, Mrs. George A. Rogers, assisted by the county presidents, has placed these announcements in libraries, doctors' offices, public schools and homes. Mimeographed copies of the National Auxiliary program have been sent to each county auxiliary.

At the last board meeting, held in Trenton, the board members were entertained by the Mercer County Auxiliary. At this time Joseph C. Buch spoke on "Helping Cripples to Help Themselves."

The members of the Essex County Auxiliary have presented the doctors of their county medical society with $100 with which to purchase new chairs for the doctors' board room.

The Essex County Auxiliary has held several successful meetings during the year, a reciprocity meeting for which 1,400 invitations were sent to members and various organizations, a meeting at which the president of the Essex County Medical Society, Dr. Edgar Ill, spoke on "Why Physicians Oppose Plans for Health Insurance," and another meeting at which the chief medical examiner for Essex County, Dr. Harrison S. Martland, was speaker. His subject was "Medical Detection in Crime," and pictures were shown of various cases in which Dr. Martland had performed autopsies.

Tennessee

The annual meeting of the Woman's Auxiliary to the Tennessee State Medical Association will be held in Knoxville, April 13-15. The Knox County Auxiliary is making special plans for the entertainment of the doctors' wives who will attend this meeting.

The auxiliary has done work for the crippled children in Knoxville this year. Dr. H. E. Christenberry recently spoke on "Health Conditions in the City Schools," and health plays taken from *Hygeia* have been given by pupils from one of the public schools.

The January meeting of the Anderson County Auxiliary was held in Clinton. A loan closet of medical supplies has been equipped for the use of the health unit and the doctors in the county. The Anderson auxiliary has also placed *Hygeia* in several of the county schools.

At a recent meeting of the Auxiliary to the Nashville Academy of Medicine and Davidson County Medical Society, Dr. William R. Cate, a member of the auxiliary advisory council, spoke on "Certain Health Problems in Nashville." At the February meeting Mrs. James D. Lester, national chairman of *Hygeia,* spoke on "*Hygeia* and the Auxiliary." The Nashville Auxiliary is sponsoring a Girl Scout troop, which has grown in interest and in numbers during the past year.

Medical Economic Abstracts

A PROPOSED MEDICAL SERVICE BUREAU IN NEW YORK CITY

Adolph G. DeSanctis, M.D., President of the Medical Society of the County of New York, in his annual address, published in the *New York State Journal of Medicine,* March 15, outlines a proposal for a medical service bureau. He said:

"I propose that a medical service bureau be established in New York County. It must be definitely understood that any plan considered must, to begin with, embody these basic principles:

"1. The personal relation between private physician and patient must be preserved.

"2. The Medical Service Bureau plan can be applicable only to those individuals earning moderate salaries or wages (excluding the indigent, unemployed and the well-to-do).

"Any person in the moderate income bracket who desires medical service is to be referred to the Medical Service Bureau, which should be under the auspices of the Medical Society of the County of New York. A financial statement similar to one required for a loan of instalment credit shall be filled out by the applicant. Financial arrangements shall be based on income, the size of the instalments the patient is able to pay, and the total indebtedness so adjusted that the period of payment will not exceed one year.

"The applicant may choose any physician. The physician shall fix his fee with regard to the patient's ability to pay. The fee should not be lower than the minimum allowed under the schedule of the Workmen's Compensation Bureau. The physician shall also arrange for hospital, nursing or laboratory services. All financial arrangements are to be made with the bureau, and the instalments are to be paid by the bureau to the physician and hospital. The bureau will make a service charge. But this is to be charged to the physician and hospital, laboratory, etc., and not to the patient."

MILLIONS FOR PATENT MEDICINES

The United States Department of Commerce has recently conducted a census of "patent" medicines and druggists' preparations; this excluded the "compounds or products handled by the pharmaceutical trade and not sold under trade marks or proprietary labels such as serums, vaccines, and toxins."

"There were 1,034 establishments primarily engaged in the production of 'patent' medicines and druggists' preparations with total net sales in 1935 of $292,681,000. Of this amount $273,685,000 represents sales through channels of primary distribution; the remainder consists of interplant transfers, exports invoiced direct from plants and other sales not distributed through usual channels or not allocated." Seven hundred and sixty-one of these establishments, with sales of $239,004,000, reported distribution costs totaling $46,200,331; this is 21.7 per cent of the sales, and is "exclusive of production cost and does not include the expense of sales offices operated apart from the plant." Total sales are almost one fourth of the amount which the Committee on the Costs of Medical Care calculated is paid annually to physicians in private practice.

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, JUNE 5, 1937

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GROUP HOSPITALIZATION

NOTE.—*This is the sixth of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

Classification according to nonprofit and profit plans does not seem valid, because a nonprofit plan may include a contract with a sales agency which makes profit. Furthermore, it is essential for a plan to make profit if it is to remain solvent. The stigma attaches not to the making of profit but to the manner in which the surplus is used. A noncommercial plan is assumed to be operated not for profit but in addition avoids the excessive diversion of receipts from members to an intervening third party for services not directly resulting in benefits for the members. The classification "noncommercial" indicates a group hospitalization plan with the control of service provisions and membership funds in the hands of those responsible for the benefits, namely, the hospitals and physicians, or an association properly representative of them. The classification "commercial" includes nonprofit as well as profit plans which are organized by commercial sales agencies.

With a clearer conception of what a group hospitalization plan is, and is not, the developments that have transpired can be more accurately visualized.

Chapter II

DEVELOPMENT OF THE GROUP HOSPITALIZATION MOVEMENT

THE FORCES BEHIND GROUP HOSPITALIZATION

As has been indicated, one of the compelling forces urging the adoption of new methods of payment for hospital care was the financial plight of the hospitals. The specific circumstances—the decrease in pay patients and the increase in charity cases, decrease in donations, decrease in income from endowments, and the lack of support by responsible governmental agencies—are so familiar that it is not necessary to discuss them in detail or to offer substantiating statistics. The claim that approximately 100 hospitals have been forced to close their doors each year since 1930 is frequently cited as an index of the dire financial condition of hospitals during the depression.[17] As a consequence, hospital administrators experimented with a multitude of plans in the search for a possible solution to the problem of decreased hospital income.

First, it was obviously necessary to broaden the base of hospital support by securing contributions from a larger number of persons in the community. Secondly, an increased use of hospital facilities, with an increase in the number of pay patients, was an essential requisite. It has already been shown that the majority of the schemes to achieve the double objective of an increase in hospital funds and more pay patients failed to live up to their expectations. Most of the plans were applicable only to restricted classes of patients and did not enable the hospital to receive a fixed amount of money regardless of the services rendered. The lack of appeal of such plans to the public and to the hospital was a large factor in preventing their widespread adoption.

The idea of group hospitalization was reintroduced at the 1931 annual convention of the American Hospital Association by a report for a southern hospital which outlined two years

17. The total number of hospitals in 1930 was 6,719 and in 1935 6,246. The decrease in the number of hospitals during this period is offset by the increase in capacity of 119,270 beds.

of experience with a group plan. In spite of the suggestion that the reading of the paper be dispensed with in order to continue a discussion of volunteer hospital workers, the plan of group hospitalization was presented and proved to be of considerable significance. The hospital administrators soon realized that the plan had a positive appeal for the American public because it was a businesslike insurance proposal and not a request for outright contributions. The sales possibilities were enhanced by the inclusion of many benefits obtainable for a low annual premium. The hospital administrators favored the plan also because it provided a sum of money before any services were rendered and immediate payments to the hospital when services were rendered. Most important of all, the plan drew public attention to the hospitals and encouraged the use of idle facilities. Furthermore, the extra services which would be required by the hospitalized subscriber, but which were not included under the contract, offered an additional opportunity to improve the financial condition of the hospitals. It was not long before the possibilities of the plan were recognized and its adoption became widespread.

While the primary motive for the adoption of a group hospitalization plan is admitted to be the bolstering of hospital finances, nevertheless it must be said that the promoters of bona fide group hospitalization plans also had the desire to furnish hospital facilities on more equitable payment arrangements for patients with limited means.

Despite the prophecy made at the 1932 annual convention of the American Hospital Association that "in a few years we will look back and a great many of us will want to erect a monument to the man who started the plan," there is a likelihood that the group hospitalization idea would not have developed so rapidly if it had not been for two compelling factors.

The first was the publicity secured by the commercial organizations formed during 1931. The promoters of these plans, whose interest in making hospital service more available was secondary to the profits they envisioned, organized and conducted membership drives to sell the idea of group hospitalization. The majority of the early group hospitalization plans were formed by promoters interested in financial or advertising schemes. It was this type of plan which was criticized by the medical profession and by hospital administrators.

The second impetus to the development of the plan was the report of the Committee on the Costs of Medical Care, which advocated group payment plans "whereby the unequal and sometimes crushing burden of medical expenses can be distributed." The recommendation that the costs of medical care be placed on a group payment or insurance basis included the following supplementary recommendation: [18]

> Voluntary Hospital Insurance.—The Committee recommends that, in the absence of a more comprehensive plan, general hospital service, not maintained by taxes or designed primarily for the wealthy, should be provided wholly or in part on a voluntary insurance basis, individuals or groups in the community paying agreed annual sums and receiving hospitalization when needed without further charge.

Following the report of the Committee on the Costs of Medical Care, an inordinate amount of activity in the promotion of group hospitalization plans was begun and reached a peak during 1933, when fifty-eight plans were organized. The number of plans promoted during the year after the report of the committee was released has not since been equaled in any one year period.

It would, of course, be expected that the foundations largely responsible for the Committee on the Costs of Medical Care would also participate in the development of the plans recommended. Liberal grants and widespread publicity were given to group hospitalization plans by the several foundations interested in promoting new forms of medical and hospital practice. Two of the larger group hospitalization plans were aided by grants of $30,000 and $25,000 respectively from these foundations. The American Hospital Association has just received a grant of $100,000 from a foundation for the study and development of group hospitalization plans.[19]

By 1933 the group hospitalization movement was well under way with commercially promoted plans and with noncommercial plans organized by hospital administrators and physicians striving to gain the favor of the general public. Daily newspapers, popular magazines, and medical and hospital journals carried innumerable articles describing inaugurations of the "new plan for low cost hospital service." Encouraged by the flare of interest in group hospitalization plans, hospital administrators everywhere began to consider the possibilities of starting a plan or of joining with some agency already organized to sell the plan. There was an amazing number of discussions and writings dealing with "voluntary hospital insurance," "cooperative hospital care insurance," "prepayment plans," "group insurance," "hospitalization insurance" and "group budgeting"; but all too little regard was given to the effect such plans would have on medical and hospital service or to the actuarial soundness of some of the practices advocated or accepted.

(To be continued)

18. Medical Care for the American People, Final Report of the Committee on the Costs of Medical Care, Publication 28, Chicago, University of Chicago Press, 1932, p. 123.

19. The foundations most interested in group hospitalization plans are the Julius Rosenwald Fund, Commonwealth Fund, Duke Endowment and Josiah Macy Jr. Foundation.

The Home of the American Medical Association

NOTE.—*This is the twenty-second of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

THE PRESS ROOM

In 1912 the press room occupied only the northwest corner of the basement; today it occupies the entire basement under the headquarters building and yet it appears to be too small. Two new flat bed presses have been installed within the last few weeks. The average number of men employed varies from fifty to fifty-five, but in times of pressure sixty-seven persons are employed and the entire equipment is in use night and day. The night force works from 5 p. m. to 1:30 a. m.

The press room equipment comprises twelve flat bed presses and three rotary presses. The largest rotary press prints ninety-six pages

Front view of the ninety-six page magazine rotary press (No. 17), showing the folder attachment.

in two colors and will carry a total of 192 plates. Twelve different colors may be used, but only one color in addition to black can be printed on any one page. This is a significant difference, for when a flat bed press is used the paper must be run through the press once for each different color and then folded by another machine. Such press runs not only add greatly to the expense of printing colors on the flat bed presses but require more time than is usually available on a weekly scientific publication. For these reasons chiefly it is a rare occasion that color plates are used to illustrate articles in THE JOURNAL.

Although several men may be working on different parts of this large press at one time, safety appliances give assurance that no one can start the press without first turning on flickering lights, which serve as a warning. The second largest rotary press will print sixty-four pages at a time; it too was built with the idea of having a color attachment, but as yet this has not been installed.

As the plates arrive in the basement from the plate room on the second floor, the foreman of

Rear view of the ninety-six page magazine rotary press (No. 17). On the right is a group of pressmen "making ready."

the press room, Mr. Orrin J. Loomis, makes out a schedule for the rotary presses, designating a certain space on the cylinders on which each

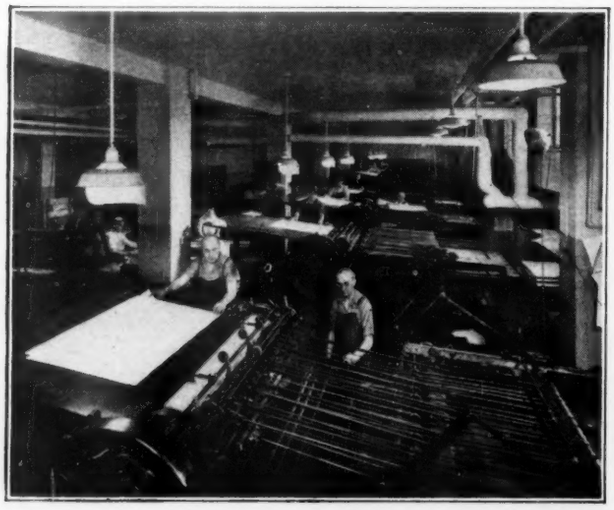
Mr. Orrin J. Loomis, foreman of the pressroom.

particular page of THE JOURNAL will be run. The pressmen next attach the plates on the cylinders and then "make ready." This requires much time, involving a trial running of the press for a complete impression of the plates on paper and then the examination of the trial sheet to find where the low spots are. The pressmen then raise the low spots by carefully pasting over the

trial sheet thin pieces of tissue paper that have been cut their exact shape. The necessary mechanical adjustments on the press itself are then made and the crew begins the actual printing of the particular job on hand. Should this

On the left the thirty-two page rotary press. To the right, the sixty-four page rotary press.

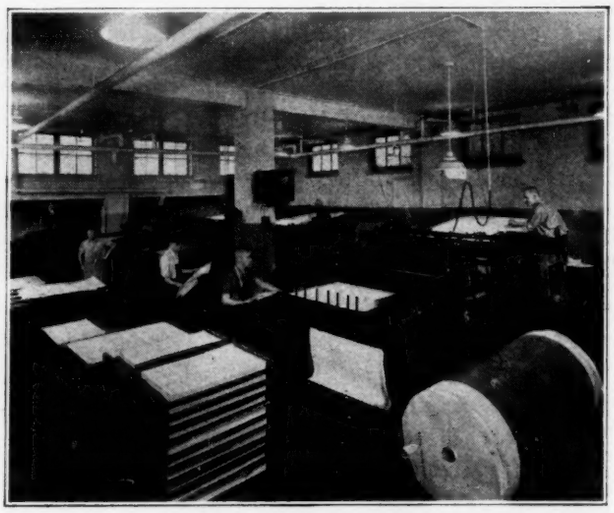
be THE JOURNAL or *Hygeia*, the rotary presses turn out the sixteen page forms already folded. As the forms come off the press they are placed in large wooden bins and taken to the bindery on the first floor, where they are placed in the



A view of several flat bed presses.

proper pockets in the gathering machine to be bound in book form.

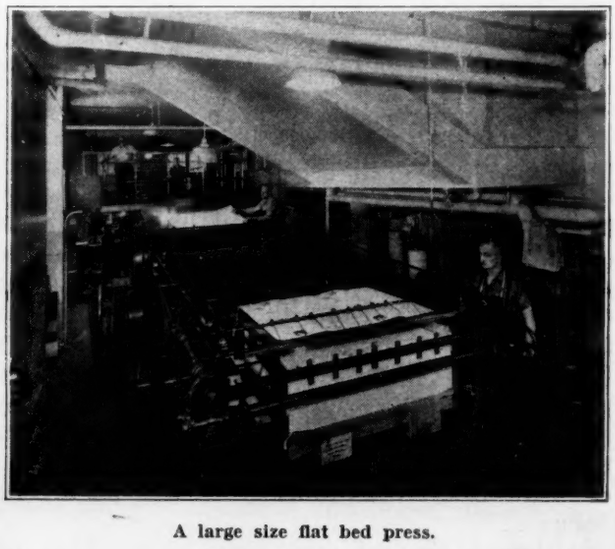
Printing presses are interesting machines. They are, first of all, sturdy. Only recently a press which had been in practically continuous use for about thirty-five years was replaced. They are complex machines, and their numerous moving parts must be accurately timed to work together to bring about the one major object of printing. The ultimate speed of the largest press is 6,000 forms an hour. The speed of the flat presses varies from 900 to 1,500 an hour. In printing THE JOURNAL the presses run night and day from Tuesday evening to Thursday evening. After THE JOURNAL run is off, the foreman makes a check up to insure that the issue is finished; then the packing and the plates are taken off the cylinders and the plates are sent back to the plate room to be melted so that the metal can be used again. The presses are then cleaned, and by that time the next issue of THE JOURNAL



Two flat bed presses. In the foreground are trays containing sheets that have just been printed.

has been made up in the composing room and is ready to go to press.

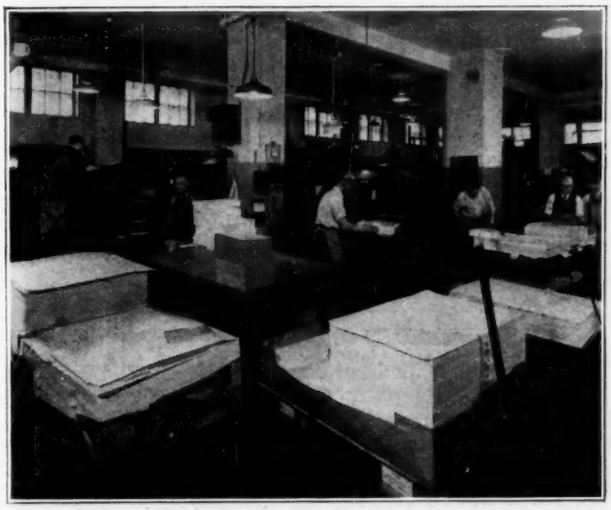
One pressman and two feeders are employed to work on and take care of two flat bed presses. The pressman is responsible for keeping his



A large size flat bed press.

presses in good working order and for getting out the amount of work assigned. The adjustment of the presses and the laying out of the large amount of varied work in the space available on the presses requires the close cooperation of a large number of employees. The night

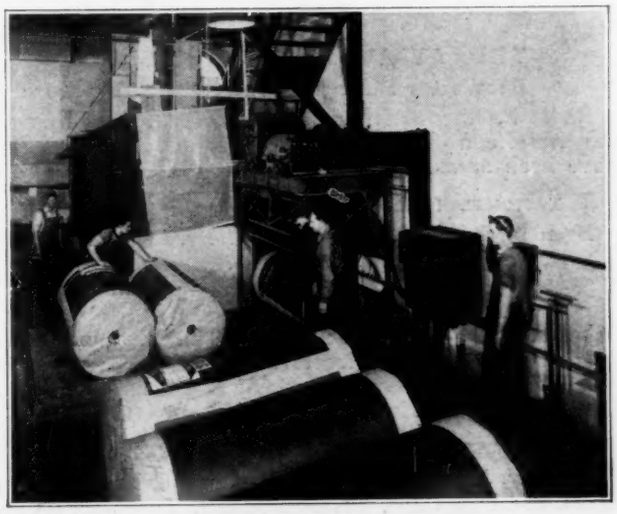
foreman of the press room, Anton Zwissig, is also night superintendent of the mechanical departments; he has been in the employ of the Association for the past thirty years. Albert



Showing piles of stock ready for printing. Paper cutting machine in center.

Gehrke, a pressman, one of the oldest employees of the Association, has been employed for about forty-four years.

A paper storage room adjacent to the press room contains 300 tons of paper stock. By means of a conveyor, one man can deliver the large one-ton rolls of paper from the stock room directly into the press room. It happens at times that THE JOURNAL and *Hygeia* are on the presses



The stockroom where the rolls of paper, weighing over 1 ton each, are conveyed to the pressroom.

simultaneously; then the press room is exceptionally busy, and in one week they may use as much as 140,000 pounds of printing paper on the rotary presses alone.

(To be continued)

Official Notes

Group Alumni and Fraternity Meetings During the Week at the Atlantic City Session

SOCIETIES

Group	Hotel	Meal	Date
American Laryngological Society	Traymore Submarine Grill	Dinner and dance	Friday, June 4
American Society for Hard of Hearing	Traymore Club Room	Dinner	Sunday, June 6
Society for Study of Allergy	Traymore Belvedere Room	Dinner	Monday, June 7
American Proctologic Society	Marlborough-Blenheim	Dinner	Tuesday, June 8
National Board of Medical Examiners	Marlborough-Blenheim	Luncheon	Monday, June 7
Society for the Study of Allergy	Traymore Belvedere Room	Luncheon	Tuesday, June 8

SCHOOLS

University of Michigan Alumni	Traymore	Dinner	Wednesday, June 9, 7 p. m.
University of Pennsylvania Medical Alumni	Jefferson	Smoker	Wednesday, June 9, 9 p. m.
Columbia University College of Physicians and Surgeons Medical Alumni	Traymore	Dinner	Wednesday, June 9, 7 p. m.
Jefferson Medical Alumni	Ambassador	Smoker	Wednesday, June 9, 9 p. m.
Rush Medical School	Ambassador	Dinner	Wednesday, June 9, 7 p. m.
St. Louis University School of Medicine	Traymore	Dinner	Wednesday, June 9, 7 p. m.
Medico-Chirurgical Alumni	Seaside	Dinner	Wednesday, June 9, 7:30 p. m.
Washington University Medical Alumni	Chelsea	Dinner	Wednesday, June 9, 7 p. m.
Women physicians	Chalfonte	Dinner	Wednesday, June 9, 7 p. m.
Johns Hopkins	Claridge	Dinner	Wednesday, June 9, 7 p. m.
Temple University	Traymore	Luncheon	Thursday, June 10, 12:30 p. m.
Georgetown University Medical Alumni	Knickerbocker	Dinner	Wednesday, June 9, 7 p. m.
University of Minnesota	.....	.....	Wednesday, June 9

FRATERNITIES AND CLUBS

Alpha Mu Pi Omega Fraternity	Madison	Luncheon	Wednesday, June 9
Theta Kappa Psi Fraternity	Madison	Luncheon	Wednesday, June 9
Phi Rho Sigma Fraternity	Ambassador	Luncheon	Wednesday, June 9
Alpha Omega Alpha Fraternity	Ambassador	Dinner	Thursday, June 10, 6:30 p. m.
Phi Alpha Gamma Fraternity	Ritz Carlton	Luncheon	Friday, June 11, 12:30 p. m.
Atlantic City Hospital Interne Association	Ambassador	Luncheon	Wednesday, June 9, 12:30 p. m.
New York Post-Graduate Hospital	Ambassador	Luncheon	Thursday, June 10, 12:30 p. m.
Medical Veterans	Ambassador	Luncheon	Tuesday, June 8, 1 p. m.
Alpha Epsilon Iota	Haddon Hall	Luncheon	Wednesday, June 9, 1 p. m.
Chi Zeta Phi	Marlborough-Blenheim	Luncheon	Wednesday, June 9, 1 p. m.
Phi Alpha Sigma	Shelburne	Luncheon	Wednesday, June 9, 12 noon

MEDICAL EXHIBITS

June 7-11—American Medical Association, Atlantic City, N. J.

June 21-26—Florida State College for Women, Tallahassee. Exhibits on food fads and obesity cures.

THE ATLANTIC CITY SESSION

Broadcasts During the Annual Meeting

Radio broadcasts in connection with the meeting of the American Medical Association at Atlantic City have been arranged as follows:

NATIONAL BROADCASTING COMPANY NETWORK

Monday, June 7—6 to 6:15 p. m. Dr. Charles Gordon Heyd, New York, President, American Medical Association. "Your Doctor and Your Health." (Red.)

Wednesday, June 9—6:15 to 6:30 p. m. Dr. W. W. Bauer, Chicago, Director, Bureau of Health and Public Instruction, American Medical Association. "Convention News and Highlights." (Blue.)

COLUMBIA BROADCASTING SYSTEM NETWORK

Monday, June 7—4 to 4:15 p. m. Dr. J. H. J. Upham, Columbus, Ohio, President-Elect, American Medical Association. "Medicine and the Public."

Thursday, June 10—4 to 4:15 p. m. Dr. W. W. Bauer, Director, Bureau of Health and Public Instruction, American Medical Association. "Your Doctor Keeps on Learning."

The time noted is eastern daylight saving time. Eastern standard time is one hour earlier, central standard time two hours earlier, mountain time three hours earlier and Pacific time four hours earlier.

ADDRESSES BY OFFICIAL STAFF

DR. W. W. BAUER:
June 7—American Academy of Tuberculosis Physicians, Atlantic City, N. J.
June 10—Kiwanis Club, Atlantic City, N. J.

DR. WILLIAM D. CUTTER:
June 15—Catholic Hospital Association, Chicago.

DR. MORRIS FISHBEIN:
June 17—Knife and Fork Club, Joplin, Mo.

DR. CHARLES GORDON HEYD:
June 7—American Medical Association, Atlantic City, N. J.

DR. R. G. LELAND:
June 8—Rotary Club, Atlantic City, N. J.
June 20-22—Maine Medical Association, Belgrade Lakes, Maine.

RADIO BROADCASTS

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts under the title Your Health. The topic and speaker for the program is:

June 8. Doctors Assembled, W. W. Bauer, M.D.

The time of the broadcast is Tuesday afternoon at 2 o'clock central standard time (3 o'clock eastern time, 1 o'clock mountain time). The Pacific network is no longer included.

The series of broadcasts under the title Your Health will be discontinued after June 8. Announcement of the new radio plan for the fall and winter season will be made in THE JOURNAL and in *Hygeia* well in advance of the first broadcast.

Medical Legislation

Medical Bills in Congress

Bill Introduced.—H. R. 7279, introduced by Representative Wallgren, Washington, proposes to authorize an appropriation of $180,000 to construct a hospital for the care and treatment of Indians of the Tulalip jurisdiction reservation and other reservations.

Changes in Status.—S. 2463 has been reported to the Senate with recommendation that it pass, proposing to authorize an increase of fifty officers in the Medical Corps of the Army and an increase of twenty-five officers in the Dental Corps. H. R. 4582 has been reported to the House with recommendation that it pass, proposing to provide additional federal aid for the American Printing House for the Blind.

District of Columbia

Changes in Status.—H. R. 5110 has passed the House, proposing to provide for the issuance of a license to practice chiropractic in the District of Columbia to Russell V. Pemberton. H. R. 6696 has passed the House, proposing to amend the healing arts practice act of the District of Columbia by repealing the time limitation within which persons licensed prior to the effective date of the act were required to apply for a new license under the act.

Woman's Auxiliary

California

The eighth annual session of the Woman's Auxiliary to the California Medical Association was held in Del Monte the first week in May. The Monterey Auxiliary, which was organized this year, and the Santa Clara Auxiliary gave assistance in plans for the entertainment of guests. Mrs. Andrew J. Thornton, the state president, visited fourteen of the county auxiliaries during her term of office.

The Alameda County Auxiliary has prepared a handbook for the year which contains a brief history of the association, its constitution, membership list, and other information. It has loan funds which have been made to students in the medical schools of Stanford University and the University of California.

The Los Angeles County Auxiliary held one of its meetings at the Orthopedic Hospital. Dr. Robert L. Carroll, orthopedic surgeon, gave a talk on infantile paralysis. A demonstration of rehabilitation of handicapped children was given by presentation of a play by crippled children of the Orthopedic Hospital. Another meeting was held at the Pacific Coast Club in Long Beach. The honor guests were the wives of the navy doctors. Mr. Ben Read discussed pending legislative measures in which the medical profession is interested.

The members of the Santa Clara Auxiliary were invited by the American Association of University women to hear Dr. Leo Eloesser of San Francisco, who recently returned from a three months' stay in Russia,

speak on "Medical Education, Care and Organization in the Soviet Union."

At the February meeting of the Orange County Auxiliary Mrs. L. E. Wilson, a member of the Public Health Committee, spoke on the "Social Security Act," and one of the members reviewed Victor Heiser's "An American Doctor's Odyssey." A scholarship loan for medical students of Orange County was established to be taken care of through its local junior college.

The Santa Barbara County Auxiliary held an essay contest on "Immunization: Its Theory, Practice and Results," in the high schools and colleges of the county. Amounts of $20, $10 and $5 were awarded to winners of the first, second and third prizes respectively. The prizes were awarded at assemblies that were held in the high schools and colleges.

Minnesota

At the board meeting of the Woman's Auxiliary to the Minnesota State Medical Association in Minneapolis in February, Mrs. E. M. Hammes, state president, reported that the county auxiliaries were increasing their membership, increasing their subscriptions to *Hygeia,* entertaining conventions, and giving liberally to various medical charities. Mrs. E. V. Goltz, president of Ramsey County Auxiliary, reported that $155 had been made on the series of play reviews given under the direction of Mrs. Herman Kesting, and that the auxiliary had held a public relations tea on March 22 to which eighty-eight officers of lay organizations were invited as guests.

Speakers at the luncheon following the business session of the board meeting were Dr. J. L. McLeod of Grand Rapids, state senator for the fifty-second District, whose topic was "A Glimpse at Legislative Problems," and Mrs. Harlow Hanson of Minneapolis, the Minnesota state commander of the Woman's Field Army for the American Society for the Control of Cancer. The Minnesota State Medical Association has asked the auxiliary to cooperate with its cancer committee and to assist the Woman's Field Army in the program of cancer control.

The St. Louis County Auxiliary celebrated this year, the fiftieth anniversary of the founding of the St. Louis County Medical Society and the twenty-fifth anniversary of the auxiliary, with a special program. Prof. Herbert Heaton of the University of Minnesota spoke on "1886 and All That." Dr. O. W. Parker gave a brief history of the activities and Dr. Harry Klein, president of the county medical society, gave an outline of its history. Dr. Malcolm Gillespie presented a pictorial history of the society.

The Ramsey County Auxiliary sponsored an essay contest for high school students on the subject "The Thirty Years Fight Against Tuberculosis."

New Jersey

The Hudson County Auxiliary has cooperated with the speakers' bureau of the state medical society by presenting "five-minute talks," prepared by the bureau, before fifteen lay organizations.

The Hudson Auxiliary also has a medical library and has added considerably to the books on the approved list of the auxiliary. At a recent meeting Dr. Charles C. Tillinghast, principal of the Horace Mann School in New York City, spoke on "Training the Parent." He stated that parent training classes have increased in interest and attendance during the last ten years. Dr. Tillinghast gave the essentials for the successful training of children and warned against the psychiatric quack.

Dr. J. Bennett Morrison, secretary of the New Jersey Medical Society, addressed meetings of both the Mercer County and Union County auxiliaries on "The Stand of the Medical Profession Regarding Socialized Medicine." He urged that auxiliary members see that bills detrimental to medical practice are defeated when they are presented in the state legislature and in Congress. The Mercer County Auxiliary has contributed to the local Red Cross chapter toward the flood relief fund. *Hygeia* has been placed in the leading hospitals and in waiting rooms in the county.

Ocean County Auxiliary has contributed toward the refinishing of the orthopedic department of the Paul McKinley Hospital in Lakewood and toward the purchase of stretchers to be used in the same institution.

The Passaic County Auxiliary held an open meeting, March 15, which was addressed by Dr. Foster Kennedy, neurologist.

Medical Economic Abstracts

MEDICAL ISSUES IN GREAT BRITAIN

The annual meeting of the British Medical Association commences July 16. In preparation for this meeting, the annual report of the council appears in the supplement to the *British Medical Journal* for April 24.

The subjects treated and the attitudes taken show a close similarity to those that are interesting members of the medical profession in the United States. There has been a steady increase in the development of public medical services, until the number now in operation is sixty. This is a form of voluntary insurance supplementary to the compulsory plan and at least partially controlled by the British Medical Association. It is confined to persons with incomes approximately between $1,200 and $2,500 per annum.

There is conflict between the representatives of the Ministry of Health and the association as to the scale of fees for physicians called in by midwives under the Midwives Act, and the meeting is asked to support the higher schedule of fees proposed by the council.

INSURANCE CAPITATION FEE

"For several years," says the council, "there has been a growing feeling that the capitation fee of 9s. awarded by a Court of Enquiry in 1924 has become inadequate for the services which an insurance practitioner is called on to give to an insured person. During the past twelve years there has been a substantial increase in the volume of work and in the content of the service. The 1936 Annual Conference of Local Medical and Panel Committees instructed the Insurance Acts Committee to proceed in the matter and, when the preparation of the case to be submitted on behalf of insurance practitioners had reached an advanced stage, a formal application was submitted to the Ministry of Health. The Minister himself then met a deputation from the Committee. He intimated that, in his view, a flat rate substantially below the present figure could well be justified. At the same time he agreed that, both sides holding opposite views, the question was one which could best be settled by arbitration and he undertook to make the necessary arrangements. . . ."

Parliament is now considering the extension of insurance to "employed juveniles between school leaving age and 16 years." The ministry is trying to set the capitation fee for such workers lower than that for adults. "At a Special Conference of Local Medical and Panel Committees called for January 7, 1937, the following resolutions were passed unani-

mously, and subsequently transmitted to the Ministry of Health:

> "That the offer of the Minister of Health of a capitation fee of 7s. 6d for medical attendance on insured persons under 16 years of age be rejected.
>
> "That this Conference recommends insurance practitioners to decline service for the provision of medical benefit for insured workers under 16 years of age at the terms offered by the Minister of Health.
>
> "That in view of the inadequacy of the existing capitation fee, and pending the result of negotiations for its increase, this Conference is not prepared to accept for attendance on insured workers under 16 years of age a capitation fee less than that which is paid for adult insured workers.
>
> "That the Insurance Acts Committee be authorized to take action in the light of the decisions reached by the Conference."

DUTIES AND ETHICS OF INDUSTRIAL MEDICAL PRACTICE

The council, in an appendix to its report, sets out the following list of duties which may properly be undertaken by industrial medical officers, when so required:

"(i) Examination of applicants for employment and advice as to their selection.

"(ii) Immediate treatment of medical and surgical emergencies occurring at the place of employment.

"(iii) Examination of persons returning to work after illness or incapacity.

"(iv) Periodic examination of persons exposed to special hazards.

"(v) Responsibility for the efficiency of the nursing and first aid personnel and equipment.

"(vi) Advice to the management regarding:

- "(*a*) The hygiene of the factory.
- "(*b*) The health conditions of the workers.
- "(*c*) The occurrence and risk of dangerous hazards.
- "(*d*) The accident prevention arrangements.
- "(*e*) Factory legislation concerning health and safety and the special diseases to which the particular industry exposes any worker.

"(vii) Maintenance of close touch with the management with a view to ensuring that conditions are such as to produce the highest degree of mental and physical welfare of the workers.

"(viii) Continued observation of all young persons with recommendation where necessary for the provision of free meals or milk.

"(ix) Continued observation of all persons returning to work after prolonged illness.

"(x) The medical supervision of canteens to ensure the cleanliness, good quality, and physiological adequacy of the food.

"(xi) Advice to the works councils, welfare departments, benevolent fund committees, etc., on any matter affecting the health of the workers.

"(xii) The arranging and carrying out of such educational work in respect of the health and fitness of the workers as may be desirable and practicable.

"(xiii) Ready accessibility to employees for medical advice on matters relating to their work.

"(xiv) Encouragement of supervisors to report signs of ill health in any of their workers.

"(xv) Advice to the management regarding fire and air raid precautions."

What is essentially a special ethical code to secure the enforcement of the regulations as to duties is also recommended. Some of the more significant sections of this code follow:

"(i) The industrial medical officer shall render such emergency or first aid treatment as is required at the place of employment and shall inform the worker's own doctor of any treatment given. Where further treatment is deemed necessary, the worker shall be instructed to consult his own practitioner.

"(ii) Where there are special facilities or equipment and suitable transport arrangements are available, if it is in the interests of the patient, continuing treatment may be given at the factory clinic with the consent of, and in consultation with, the worker's own practitioner. . . .

"(iv) The industrial medical officer shall not provide treatment in cases of disability, save in such instances as may be covered by an understanding with a committee representative of the local medical profession or where there is an *ad hoc* agreement with the worker's own practitioner. Such treatment shall be given only with the consent of the worker.

"(v) The industrial medical officer shall consider and advise on the occupation of any worker whose duties appear to be too heavy or otherwise unsuitable, and where necessary he shall consult the worker's own doctor.

"(vi) The industrial medical officer shall, after communication with the worker's medical attendant, (*a*) examine and advise concerning those workers engaged in hazardous or arduous occupations; also those about to be transferred to heavy or dangerous occupations; and (*b*) examine and report to the works management on those workers who appear suitable for early pension or retirement or in regard to the continuance of invalidity payments.

"(vii) The industrial medical officer shall not carry out domiciliary treatment.

"(viii) A whole time industrial medical officer shall not treat any member of the worker's family who is not employed at the factory.

"(ix) A part time industrial medical officer shall not utilize his position to influence the worker to choose him as medical attendant or family doctor.

"(x) The industrial medical officer shall not, except in an emergency, or where a prior understanding with the local practitioners is in operation, send any employee direct to hospital. Where he considers attendance at hospital to be necessary or advisable, he shall refer the employee to his own medical attendant and may make a suggestion to this effect to the latter.

"Where, in an emergency, the industrial medical officer sends a worker to hospital, he shall advise: (*a*) the relatives (if the patient is detained); and (*b*) the worker's medical attendant. . . .

"(xii) The industrial medical officer should, where possible, respond to any invitation to meet the worker's practitioner in consultation.

"(xiii) Except in emergency, the industrial medical officer shall not carry out any individual preventive measure without the individual consent of the worker, and prior agreement with the worker's medical attendant. He shall in no way associate himself with experiments which involve the active participation of the workers without their consent and the prior notification of the worker's doctor.

"(xiv) The medical records of the workers maintained by the industrial medical officer are confidential documents; they must remain in the custody of the industrial medical officer or of his deputy. Access to them must not be allowed to any other person save only to another registered medical practitioner and then only at the request or with the consent of the worker."

ORGANIZATION SECTION

of the

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GROUP HOSPITALIZATION

NOTE.—*This is the seventh of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

PRINCIPLES AND APPROVALS

In THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, between October 1932 and February 1933, there appeared a series of articles on New Forms of Medical Care, which outlined many of the schemes for "organizing" medical and hospital services. The January 1933 issues of THE JOURNAL contained a discussion of hospital insurance schemes and listed fifteen prospective defects as against four merits of such plans. Some of these defects were competition between hospitals with plans and hospitals without plans, interference with free choice of hospital and physician, organization by profit-seeking promoters, introduction of commercial influences in hospital and medical services, uncertain actuarial bases, improper regard for insurance laws, extension of benefits to include medical services, solicitation of patients by salesmen, and the possibility of undesirable control of hospital management. In February 1933 "Prepayment Plans for Hospital Care"[20] again emphasized the abuses that are caused by commercialization and the defects of certain group hospitalization practices.

Immediately following the publication of these criticisms, which were made for the purpose of helping to avoid unsound principles in the formation of group hospitalization plans, a storm of protest was raised by persons interested in promoting such plans. The medical profession was erroneously accused of objecting to all group hospitalization plans and of attempting to obstruct a plan that would save the hospitals from a financial crisis. Nevertheless, the realization of some of the untoward effects of the unsound and commercial plans caused modifications in the utopian claims and started the adoption of principles to guide the development of better group hospitalization plans. Hospital associations and medical societies were aroused to the growing importance of group hospitalization plans as well as to the dangers of certain practices. They soon began to stipulate the principles that should be observed by these plans.

In February 1933 the board of trustees of the American Hospital Association approved the "general principle of group payment as applied to hospital service." A brochure outlining certain principles for group hospitalization plans was prepared by the Council on Community Relations and Administrative Practice of the American Hospital Association and copies were sent to hospitals and physicians throughout the country.[21] Some of the principles outlined were: Emphasis should be placed on public welfare and not on hospital finances; control should be in the hands of a nonprofit organization representing the hospitals; no contract should be made with business agencies seeking to control the plan; benefits should be limited to the hospital charges only; free choice of physician and hospital should be permitted, and there should be cooperation instead of competition by including all hospitals of standing in the community. The action taken by the board of trustees was not endorsed by the American Hospital Association until September, when the

20. Leland, R. G.: Prepayment Plans for Hospital Care, J. A. M. A. 100: 870 (March 25) 1933.

21. The Periodic Payment Plan for the Purchase of Hospital Care, American Hospital Association, Chicago, February 1933.

annual convention of the association approved "the basic principle of periodic payment for the purchase of hospital care."

In June 1934 the board of regents of the American College of Surgeons approved the report of the Medical Service Board, which recognized that the periodic prepayment plan "offers a reasonable expectation of providing them (dependents and families of moderate means) with more effective methods of securing adequate medical service." [22] In view of the newness of the plan of hospital insurance, the board of regents recommended that such experiments be continued but that certain principles should be followed. These principles stipulated that there must be no intervention of commercial organizations for profit, organization must be under the control of the medical profession, free choice of physician and hospital by the patient must be assured, and the code of ethics of the medical profession must be observed.

Unfortunately, the promoters of group hospitalization plans did not always see fit to observe the principles outlined by the American Hospital Association and the American College of Surgeons. Their advertising matter, however, never failed to emphasize that the plan was approved by the American Hospital Association and the American College of Surgeons. Blanket approvals which do not specify the method of control over plans claiming approval generally result in a number of plans that ignore many of the requisite principles but still claim to be "approved." At a round-table conference of persons interested in group hospitalization [23] "it was pointed out that the American Hospital Association's recommendations for an approved plan frequently were quoted, but the actual plan offered differed from these recommendations in important ways." An indication of the failure of many plans to comply with the principles stipulated by the American Hospital Association is also shown by the following resolution: [24]

Be it Resolved, That hospitals contemplating the establishment of or participation in Group Hospitalization Plans bear in mind the recommendations of the Association and, before any active participation in such plans, consult with the offices of the Association for information and advice concerning individuals or agencies sponsoring such periodic payment plans for the payment of hospital care.

Obviously, unless group hospitalization plans were closely supervised, a very undesirable form of commercialism would be introduced into hospital and medical practices.

22. Report of the Medical Service Board, Bull. Am. Coll. Surgeons 18: 3-5 (June) 1934.

23. Will Private Insurance Companies Sell Group Hospitalization? Hosp. Management 37: 35 (March 15) 1934.

24. Tr. Am. Hosp. A. 37: 916 (Oct.) 1935.

GROWTH OF SUPERVISION

As early as 1926 the Judicial Council of the American Medical Association had taken cognizance of so-called hospital associations which, for the payment of annual membership dues, provided medical, surgical and hospital services when needed. The Judicial Council reported that: [25]

The Principles of Medical Ethics of the American Medical Association specifically condemn the solicitation of patients whether by individual physicians, by groups, by institutions, or by organizations of physicians. The Judicial Council is of the opinion, therefore, that, so far as these health or hospital associations are organized for the purpose of soliciting patients, they are distinctly unethical. It goes without saying that for any organization of any kind to offer for an agreed stipend more than the reasonable worth of that which is offered is wrong in principle, and physicians should guard themselves against being connected with such organizations.

These "hospital associations" were evidently misnamed, because they were not associations of hospitals but were merely the business offices of groups having medical contracts for sale.

As has been indicated, hospitals did not begin organizing group payment plans until the years 1929 to 1932. In 1931 the Judicial Council reported as follows on plans offered by hospitals: [26]

Within the last year, some community hospitals have announced their intention to provide medical, surgical and hospital service to families on a flat rate basis. In at least one instance, such service has been offered to families for $35 a year, irrespective of the number of members in such families. In most instances, certain exceptions are made in that persons with chronic diseases are not entitled to receive the benefits of the plan and obstetric service is not supplied without additional compensation. The members of the Judicial Council doubt that it is wise to lead the people in any community to believe that all necessary medical and hospital service, even though chronic diseases and obstetric care be excepted, can be provided for the average family for $35 a year. In the cases presented to it the Judicial council has advised against the adoption of such plans by community hospitals because it is believed that they are not economically sound in that they may be unfavorably affected by conditions entirely beyond control under which contracts cannot be fulfilled. There are other aspects of the matter that readily present themselves for consideration involving the interests of physicians in the community who cannot participate in such plans.

In regard to these new plans for hospital and medical service the House of Delegates of the American Medical Association adopted the following report of the Judicial Council: [27]

It is not enough that these plans be considered only in the light of present economic conditions; it is essential that they be examined with a view to determining their ultimate effects on the future of medical practice and on the progress of medical sci-

25. Report of the Judicial Council, Proceedings of the House of Delegates, 1926, p. 28.

26. Report of the Judicial Council, Proceedings of the House of Delegates, 1931, p. 24.

27. Index and Digest of Official Actions, American Medical Association, Chicago, American Medical Association Press, 1933, p. 120.

ence and, above all, they should be examined with the most careful consideration of their possible untoward effects on public welfare.

Accordingly, state and county medical societies and some hospitals were not swept aside by the general wave of enthusiasm with which group hospitalization plans were received but insisted on the inclusion of definite principles before they would cooperate with such plans.

(To be continued)

The Home of the American Medical Association

NOTE.—*This is the twenty-third of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2. Additional articles will be published until the series is completed.*—ED.

THE SUPERINTENDENT'S OFFICE

The composing room, bindery, pressroom, plateroom and proofroom are all under the direct supervision of the superintendent's office, which occupies the southwest portion of the first floor. During the recent renovation of the building and the construction of the new floors, the superintendent of the building, Mr. Burton Williams, and his assistant, Mr. Ernest Booth, were representatives of the Association

Mr. Burton Williams, superintendent, center, and Mr. Ernest Booth, assistant superintendent.

headquarters in its contact with the architects and the contractors. The superintendent's office is directly responsible for the maintenance of the headquarters building. There are twenty-two persons employed at present for this part of the work—five day janitors, six night janitors, three firemen, two engineers, one electrician, one carpenter and one window washer. The superintendent's office is also responsible for the purchase of paper and other supplies and materials used in the mechanical departments, as well as for the layout from day to day of the various publications of the Association on the printing presses.

THE GORDON AND KELLY PRESSROOM

In the northwest corner of the first floor are the Gordon and the Kelly presses, on which are printed all the circular letters that are sent out by the Association headquarters, the single page reprints, covers for all reprints, cards, letterheads and envelops used by the Association,

The three Gordon presses.

and all the office stationery. The Gordon and the Kelly presses are smaller than the printing presses in use on the floor below, the Gordon

The three Kelly presses.

being a small flat bed press and the Kelly a small rotary press.

In this portion of the building are three automatically fed Gordon presses and two large and one small Kelly automatically fed presses. These machines require the services of five men. They are under the supervision of Mr. William Foley, foreman of the composing room.

(To be continued)

The Bridge Trophy of the Los Angeles County Medical Association

In July 1936 Dr. Harlan Shoemaker, then president of the Los Angeles County Medical Association, appointed a committee consisting of Drs. S. M. Alter, Charles E. Phillips and E. Eric Larson to organize a bridge tournament to be held at intervals at the association's headquarters during the remainder of the year. The sessions were held every two weeks for ten weeks and about sixty members played. Dr. Shoemaker also decided to provide a bridge trophy,

Aztec calendar stone, which forms the support of the miniature bridge table, chairs and players of the President's Trophy.

utilizing the Aztec calendar stone as a support for a miniature bridge table, chairs and players, and Dr. Arthur E. Smith was chosen to design and sculpture the trophy.

Dr. Smith writes that much time and effort were necessary to secure the necessary data and photographs to start the designing and modeling. A copy of the Aztec calendar stone could not be found in Los Angeles, but a friend in Mexico City supplied a small picture. Books on Mexican art were borrowed from Dr. Elmer A. Belt. No models of the feathered serpents could be located in Los Angeles but books from the public library gave data on them.

The first step in production was to make the calendar stone. An eighteen inch enlargement was made of the photograph. An eighteen inch copper disk was then made, on which, with scribing tools, the hieroglyphics from the photograph of the calendar stone were outlined in minute detail. When this was completed, an impression was taken and a plastic positive model produced. The detailed outline of the hieroglyphics of the calendar were reproduced on the positive plastic model. All the characters were then carefully carved in relief. Another negative impression was made, from which a positive model was produced in artificial marble. All models comprising the trophy were reproduced in copper and bronze before assembling. By similar methods were created models of the feathered serpents, which in the trophy were to support the calendar stone and tableau. For production of the tableau, Dr. Smith photographed four players seated at a bridge table. The players are Harlan Shoemaker, Charles E. Phillips, Edward C. Pallett and E. Eric Larson. From the photographs, each player was modeled to scale in clay in their original positions, and when the players were sculptured, impressions were taken and reproductions made in artificial marble and later in bronze. The players were placed in their respective chairs in the position that they occupied during the actual game. The score pad, pencil, cigarets and pipe were produced in metal on a one-eighth to one inch scale.

The trophy is to be known as the President's Perpetual Bridge Trophy; it is to be the property of the Los Angeles County Medical Association; it is to remain on display at the association headquarters; the trophy is to be awarded each year to the physician who makes the highest bridge points and his name shall be placed on it. The winner for 1936 was Dr. Harold P. Hare, whose name is engraved on the trophy.

The Aztec calendar stone is of historical significance. The original calendar, referred to as the stone of the sun, was discovered under the pavement of the Plaza Principal Dec. 17, 1790, by Don José Damian Ortiz de Castro, author of the architecture of the towers of the metropolitan cathedral. The first mold of the original stone was taken by the proprietor of the Museum of London. Later, a mold of the relief was secured by the American Museum of Natural History of New York. In 1885 the monument was transported to the Grand Salon of the Museum of Archeology, City of Mexico.

President's Trophy. Note the open mouths of the feathered serpents and the carved columns.

The stone, 3.63 meters in diameter, is sculptured in basalt. The entire surface is occupied by glyphs distributed in seven concentric circles. At the center is the image of the sun. Enclosing the face of the sun and occupying the following circle is the sign Naolin, indicative of the movement of the sun between the solstices and the equinoxes. The third circle contains the twenty characters of the native month. These symbols have constituted the foundation of various other calendars, and some believe that they are symbols of the native zodiac.

The feathered serpent, six reproductions of which form the legs on which the tabloid calendar rests, has an interesting history. During the excavation of the city of Chichen Itza, in 1925-1928, it was discovered

with other ruins that depict the ancient civilization in this region.

The Maya, who were responsible for this architecture, moved into the province of Yucatan about the eighth century, coming from Guatemala after the soil in that region was no longer useful for the growing of their corn.

The architecture which the Maya left behind them in the south was different from that of the feathered serpents and other monuments found at Chichen Itza. In its representations the feathered serpent shows a strong Mexican influence, and it is said to be the Maya translation of the Mexican god Quetzalcoatl, or Venus.

The feathered serpent was the patron deity of the city of Chichen Itza and two large columns resembling the feathered serpents were found to guard the portal of the temple of warriors.

Official Notes

DECISIONS OF ADVISORY COMMITTEE ON ADVERTISING OF COSMETICS AND SOAPS

The following general decisions of the Advisory Committee on Advertising of Cosmetics and Soaps have been released for publication:

1. The committee is unable to accept any statement to the effect that a product is nonallergic,[1] allergen free or synthetic nonallergic, because even the simplest preparation may be allergic to a susceptible person.

2. Such products as "skin fresheners" and "tissue creams" are not acceptable for advertising, because there is no evidence that tissue can be nourished or skin freshened by cosmetic preparations.

3. Hair or scalp tonics or lotions for which therapeutic claims are made, such as treatment of falling hair, dandruff or scalp infections, are not acceptable for advertising. (Preparations for therapeutic treatment of skin diseases come under the purview of the Council on Pharmacy and Chemistry and must comply with its rules.)

4. The composition of all cosmetics must be openly declared, either on the label or in literature which may be obtained on request from the manufacturer. In addition, the manufacturer must agree to furnish to any physician who makes inquiry the names of the dyes and their chemical composition and the names of the perfumes used in any of the cosmetic preparations.

5. The statement "Accepted for Advertising in Publications of the American Medical Association" may not be used in connection with a firm's products unless all the products referred to in the display or advertisement are acceptable for advertising. If all the products are not acceptable, then the firm must name the products which are acceptable for advertising.

1. Because this term was in general use before the creation of the Advisory Committee on Advertising of Cosmetics and Soaps, the following action has been adopted by the Advertising Committee of THE JOURNAL:

"Beginning with July 1, 1937, the term 'nonallergic' shall not appear in the name or description of any cosmetic preparation unless an asterisk appears opposite the word 'nonallergic' accompanied by a suitable notation explaining the limitations of the term.

"After Jan. 1, 1938, no advertisement for a cosmetic preparation shall contain in its name or in its description any statement that it is nonallergic or any implication that the ingredients of the preparation are 100 per cent nonallergic."

MEDICAL EXHIBITS

June 12—Opening day of the Texas Pan-American Exposition in Dallas. Exhibits showing the specialties of medicine; medical care in the hospital; medical care in the home; dangers of self diagnosis and self medication.

June 14-16—Catholic Hospital Association, Stevens Hotel, Chicago. Exhibit on hospital material.

June 21-26—Woman's Institute and the Summer School, Florida State College for Women, Tallahassee. Exhibits on food fads and obesity cures.

ADDRESSES BY OFFICIAL STAFF

DR. WILLIAM D. CUTTER:
June 15—Catholic Hospital Association, Chicago.

DR. MORRIS FISHBEIN:
June 17—Jasper County Medical Society, Joplin, Mo.
June 17—Knife and Fork Club, Joplin, Mo.

DR. R. G. LELAND:
June 20-22—Maine Medical Association, Belgrade Lakes, Maine.

Medical Legislation

MEDICAL BILLS IN CONGRESS

Changes in Status.—A subcommittee of the House Committee on the Judiciary held a hearing, June 4, on H. R. 4650, proposing to amend the United States Employees' Compensation Act so as to provide that the term "physician" shall include osteopathic practitioners and that the term "medical, surgical, and hospital services and supplies" shall include services and supplies by osteopathic practitioners and hospitals. S. 2463 has passed the Senate, proposing to authorize an additional number of medical and dental officers for the Army.

Bills Introduced.—H. Res. 225, submitted by Representative Maverick, Texas, proposes to create a standing committee of the House to be known as the Committee on Public Works and Welfare, to consist of twenty-five members of the House. It is proposed to refer to this committee all legislation concerning public works, public health, social security, the relief of unemployment and of destitution caused by floods, droughts, and other emergencies. H. R. 7262, introduced by Representative Jenkins, Ohio, proposes to amend the act creating the Federal Trade Commission so as to declare unlawful any unfair or deceptive acts or practices in commerce whether or not involving unfair methods of competition. The bill proposes further to declare it to be unlawful for any person, partnership or corporation to disseminate, or cause to be disseminated, any false advertisement (1) by United States mails, or in commerce by radio broadcast or otherwise, for the purpose of inducing, or which may likely induce, directly or indirectly, the purchase of food, drugs, devices, or cosmetics; or (2) by any means, for the purpose of inducing, or which may induce, directly or indirectly, the purchase in commerce of food, drugs, devices, or cosmetics. The term "false advertisement" is defined to mean any advertisement which makes an untrue statement of a

material fact or omits to state a fact necessary in order to make any word or words, statement, design, or device made or used, in the light of the circumstances under which made or used and to which applicable, not misleading in a material respect. H. R. 7353, introduced by Representative Izac, California, proposes to authorize an appropriation of $1,000,000 to erect a veterans' hospital in or near the city of San Diego, apparently for the treatment of general medical and surgical disabilities.

Colorado

Bill Enacted.—S. 382, the basic science bill, was approved by the governor June 1. By this new law all applicants for licenses to practice any form of the healing art, as a condition precedent to their right to examination and licensure by their respective professional boards, will be required to pass examinations in anatomy, physiology, chemistry, bacteriology and pathology, to be given by a board of examiners in the basic sciences. The board is to consist of five members, two of whom must be members of the faculty of a university or college in the state accredited by the North Central Association of Colleges and Secondary Schools, familiar with the subjects in which the board is to examine applicants, one a doctor of medicine, one a doctor of osteopathy, and one a doctor of chiropractic. No member of the board is to be engaged in the practice of the healing art or any branch thereof during his term of membership in the board. The law is not to apply to any person who graduates prior to July 1, 1940, from a school of the healing art which on July 1, 1937, is recognized and approved by the respective professional licensing boards.

Michigan

Bill Enacted.—H. 261, the basic science bill, was approved by the governor, May 27, and is to be cited officially as "Public Act No. 59," Acts, 1937. The new law requires all applicants for licenses to practice any form of the healing art, as a condition precedent to their right to examination and licensure by their respective professional boards, to pass examinations in anatomy, physiology, bacteriology, pathology, hygiene and public health, and chemistry, to be given by a board of examiners in the basic sciences. This board is to consist of five members, two of whom must be members of the faculty, "teaching the subjects of the basic sciences," in any university or college in the state, one a licensed physician and surgeon, one a licensed osteopath, and one a licensed chiropractor. The act is not to apply to any person matriculating in any medical, osteopathic or chiropractic school or college on or before Oct. 15, 1937.

Medical Economic Abstracts

COOPERATIVES IN THE UNITED STATES

According to a factual study on cooperatives in the United States, issued by the National Association of Manufacturers, these organizations are concerned primarily either with buying, selling or manufacturing. Their activity in the manufacturing field is comparatively small, although 35 per cent of the creamery butter and 22 per cent of the cheese made in the United States was produced in 1934 by cooperatives. A considerable amount of feed, fertilizers, lubricating oils and greases were also prepared by cooperatives. The total business of the buying cooperatives in 1935 was around $365,000,000 and is expected to exceed $500,000,000 in 1936; the latter amount is 1.5 per cent of the total retail trade of the United States in 1935. The marketing cooperatives in the year 1935-1936 did a business estimated at $1,586,000,000; this is about 23 per cent of the estimated cash income from farm production in 1935. Eleven different governmental organizations are listed as in some way having extended government aid to cooperatives. There has also been special federal and state legislation favoring their organization and operation. Cooperatives under certain conditions enjoy exemptions from the federal income tax and there are several states also in which they are extended special tax exemptions.

MEDICAL SERVICE PLANS IN IOWA

Polk and Linn Counties, Iowa, have medical service bureaus in operation, which are described in the *Journal of the Iowa State Medical Society* for April.

The Polk County plan covers those regularly employed, of low income classes. Cooperation of the employers, hospitals, pharmacists, physicians and dentists has been secured. When the service is completed, all bills are remitted to the central office of the bureau, where a special committee comprised of one representative from the hospital group, one from the dental group and three from the medical group adjudicate the bill so as to bring it within the ability of the applicant to pay over a period of a year's time. Ten per cent of all payments is retained by the Polk County Medical Society to cover overhead expenses.

The Linn County Medical-Dental Business Bureau works in cooperation with the health committee of the chamber of commerce. After a conference with the patient at the bureau office to arrange for the budgeting of payments, the facts obtained are presented to the doctor of the patient's choice; this doctor then adjusts his fee to fit the patient's budget. Here also a charge of 10 per cent is made to cover expenses.

It has been found that with accounts arranged on such a budget basis the doctor receives more for his work than under ordinary methods of charging and collecting.

SICKNESS INSURANCE IN BRAZIL

According to a report of R. M. Scotten, American chargé d'affaires ad interim at Rio de Janeiro, in the April issue of the *Monthly Labor Review*, a compulsory insurance scheme providing invalidity, sickness and survivors' benefits for industrial workers in Brazil was established by law on Dec. 31, 1936. The coverage extends to "all persons whose work under any form of remuneration is directly associated with manufacturing, production or transformation of utilities in establishments where this is the only or the predominating activity, for employees of professional associations of industrial employers and workers, and for the employees of the Institute."

Contributions from employees are temporarily fixed at 5 per cent, and the government is to make a contribution through a "social welfare tax" of 2 per cent of the value of all imports except fuel and wheat, supplemented, if necessary, by direct appropriation.

Thirty days after the publication of the law, a technical committee is to organize an institute, which is to be the administrative authority and is to take a census of industrial workers; this is preliminary to the introduction of the law.

ORGANIZATION SECTION

of the

Journal of the American Medical Association

Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

SATURDAY, JUNE 19, 1937

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Regimentation in Medicine

THOMAS R. BOGGS, M.D.

BALTIMORE

In these years of change, which affect all avenues of human endeavor, it is not strange that the medical profession should feel the pressure of new philosophies of human relations. Of these none is more powerful than the trend toward compulsion, by organized efforts, into a conformity called standardization. This standardization, with excellent ideals as its rallying point, may yet contain in its logical development methods which can but lead to bureaucratic stereotypism far worse than the evils it is set up to correct. In the past twenty years, at first slowly, and since 1930 very rapidly, there have been formed some fourteen incorporated bodies for the standardization and certification of individuals as specialists in the various fields of medicine. The driving motive was a sincere desire to improve the quality of medical service to the community, the ideal being that by this means of certification the public could be made aware of the competence of a given doctor in his specialty and, conversely by implication, the incompetence of the uncertified. To coordinate the scope and methods of these boards a superboard has been incorporated to direct the general trend of the standardization and centralize the efforts to put it in effect. Time does not permit a full discussion of all the historical elements which have led to the situation that now exists, but I shall try in a few minutes to bring up some of the points that may make the thoughtful pause and consider.

We then are face to face with the proposal to standardize the term internist and certify such as are competent to fulfil the implication of that title. Let us consider for a moment the object of this proposed certification. It is, according to the board, to determine who is properly an internist. I submit that no examination taken, together with any questionnaires, evidence of courses followed, theses and related documents can determine this matter. It cannot be reduced to a formula the sum of the elements indicating the answer "This person is an internist or not an internist." An internist's recognition, as such, really rests on the consensus of his professional colleagues and trainers that he is so qualified. His proved value to his colleagues and patients is the only adequate test.

The training of the qualified internist may be obtained in a variety of ways, and it is desirable and to the public interest that this should be encouraged rather than to try to reduce it to one prescribed, specific mode. It is to my thinking evident that the test of active and open competition with qualified professional men will soon reduce the pretender to his proper level and minimize the potentialities for harm he may have; and, furthermore, the effort at an artificial standardization by formula may do much more fundamental damage.

In studying the brochure that sets forth the scheme, one is struck, as one would expect, with the fact that definition of the term is wanting and I will admit it must be wanting if it were to be more particular than "a broadly experienced physician." The first hurdle, that of the internist de facto, is easily gotten over by certifying those internists in good community standing who graduated prior to a basic date on payment of a fee. For the aspirant to certification in the future, certain times of resident service in acceptable hospitals are required,

Presidential Address, read before the Association of American Physicians, Atlantic City, N. J., May 4, 1937.

together with graduate courses in the basic medical sciences and supervised instruction in internal medicine in properly equipped institutions.

The requirements in general are purposely rather hazy and vague as to limits, but it is evident that great expense must be met, either by the aspirant or by other agencies, before the three or more years of special postgraduate training are absolved. If by the aspirant, then qualification will be limited to the few provided with sources of income apart from their personal earning. Otherwise the school and the hospital will be requested to supply them. The request will perhaps ultimately be supplanted by requiring these agencies of education to rearrange their organization and budget to meet the type of special instruction advocated or be blacklisted.

Thus one may see the boards of trust and of administration of hospital and medical school surrendering their judgment and their responsibility to the dictation of private corporations with no responsibility, under a type of urging which really amounts in plain words to a potent threat. The trend of the plan seems on close inspection to contain possibilities of method which strike at the very roots of medical education by substituting the extralegal demands of certificating bodies for the considered plans and policies of those properly entrusted with medical education and training. Already hospitals, and perhaps next medical schools, are requested to appoint only certificated individuals to leading positions in the various departments. Would agreement to this not put a dangerous and unbearable limitation on the academic freedom of choice?

Some special societies are limiting membership to the certificated. Such limitation might conceivably spread to sections of the American Medical Association, to state associations, and even to desirable mediums for publication.

Lastly, I ask that the historical evolution of such agencies for reform in which operation must devolve to an extent on a paid secretariat be considered. The able zealot, fired by desire to make something better, dies, or tires of the effort and sacrifice of his time, and ultimately the application of the scheme becomes a stencil in the hands of a bureaucrat incapable of judging or evaluating justly. Dr. Adolf Meyer, in his presidential address to the American Psychiatric Association in 1928, discussed at length methods for the improvement of psychiatric training and of service to the public and concluded in part as follows: "We want plastic and progressive standards rather than a set form; we want the right to individuality but with recognition of a responsibility for a consensus."

We, the oldest national society of internists, have been and are moving toward a goal of high quality in the field of internal medicine. Shall we continue our work as in the past fifty years, which have accomplished so much, or shall we join in a movement to bring about a millenium by force with the new evils which ever accompany such efforts?

Let us rather, in the words of St. Paul[1] ". . . be able ministers of the New Testament; not of the letter, but of the spirit: for the letter killeth, but the spirit giveth life."

1013 North Calvert Street.

1. II Cor. iii, 6.

Group Hospitalization

NOTE.—*This is the eighth of a series of articles on Group Hospitalization, prepared by the Bureau of Medical Economics of the Association, which is to be published weekly in the* AMERICAN MEDICAL ASSOCIATION ORGANIZATION SECTION. *When completed, the series will be available in reprint form on request at the headquarters of the Association.*—ED.

In at least twenty-four states the state or county medical societies have taken action with regard to the group hospitalization plans in the territory under their jurisdiction. The majority of these actions were favorable toward plans which adhered to certain essential principles. The local medical societies usually asked for participation in the control of the plan and were in a position to judge whether or not the plan would follow the principles stipulated. No blanket approval of group hospitalization was given and most of the projects were not sanctioned until a complete study had been made by the county medical society.

The following resolutions adopted by one state association are presented as an example of the action taken by medical societies at the time group hospitalization plans began to develop (1933):

The Council believes that the ..... State Medical Association should interest itself in all proposals affecting the care of the sick. In considering any hospital group payment plan for hospital service, it feels that such plan will be contrary to public interest unless there is evidence that the provision is made for the following:

1. Determination of rate upon basis of accurate actuarial figures.
2. Establishment of adequate reserves.
3. Sufficient spread of the field so that disaster to any one group will not destroy the reserves of the insurer.
4. Selling of insurance only when adapted to the individual it aims to serve.
5. Definite provision that medical service will not be included at outset or at any future time.

In general this Council views any projects for hospital insurance with skepticism.

a. It doubts whether accurate actuarial information is available.

b. It doubts whether hospitals are able to establish adequate reserves in advance because of the financial difficulties under which most hospitals are known to be operating at present.

c. It feels that the selling of such insurance will become a promotion matter.

d. No assurance has been given that complete medical service will not be included at some future date; and further, the proposed inclusion of laboratory, roentgenological, resident and/or interne service is in itself furnishing medical service.

e. The alinement of insured groups to a certain hospital or group of hospitals is destructive of the traditional relationship of physician-patient.

f. The inevitable public advertisement of hospital insurance is certain to serve directly or indirectly as an advertisement of the members of the visiting and associated staffs, and would be a discrimination against many physicians not affiliated with the insuring hospitals.

Therefore, the Council recommends that any component society of the ..... State Medical Association refuse sanction to any hospital insurance project until complete study has been made by the county medical society, and until pertinent data have been submitted to, and acted upon, by the Council of the ..... State Medical Association.

In accordance with the growing demand for supervision of medical care plans, the House of Delegates, without recommending any plan, adopted the following ten principles to govern experiments for organizing medical and hospital services: [28]

First: All features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

Second: No third party must be permitted to come between the patient and his physician in any medical relation. All responsibility for the character of medical service must be borne by the profession.

Third: Patients must have absolute freedom to choose a legally qualified doctor of medicine who will serve them from among all those qualified to practice and who are willing to give service.

Fourth: The method of giving the service must retain a permanent, confidential relation between the patient and a "family physician." This relation must be the fundamental and dominating feature of any system.

Fifth: All medical phases of all institutions involved in the medical service should be under professional control, it being understood that hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the physician. He is the only one whom the laws of all nations recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institutions. Their value depends on their operation according to medical standards.

Sixth: In whatever way the cost of medical service may be distributed, it should be paid for by the patient in accordance with his income status and in a manner that is mutually satisfactory.

Seventh: Medical service must have no connection with any cash benefits.

Eighth: Any form of medical service should include within its scope all legally qualified doctors of medicine of the locality covered by its operation who wish to give service under the conditions established.

Ninth: Systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

Tenth: There should be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession.

These principles have been lightly referred to as the "Ten Commandments" of the American Medical Association, but their usefulness and importance have been demonstrated. County medical societies have been guided by these fundamental recommendations and have found the following statement submitted by the committee that recommended the adoption of the principles to be true:

Such restrictions will undoubtedly lower the enthusiasm of many of the present advocates of such schemes. They remove the interest of the politician, the commercial promoter and all those who consciously or unconsciously are seeking to achieve other objectives than better medical care for those unable to provide such care for themselves under present conditions. All these principles are directed toward protecting the character of the service to be given and all are directly designed to guard against abuses which experience shows are bound to arise when these principles are neglected.

The result of the position taken by medical societies and by hospital administrators in sympathy with medical ethics was to bring gradually into disrepute those plans which did not follow the more essential principles that have been outlined. New plans promoted by commercial agencies or profit-seeking promoters no longer appealed to hospital administrators. The day of the commercial and competitive schemes began to wane and in their stead rose the city-wide, noncommercial associations of hospitals designed to offer hospital facilities on a prepayment basis. Group hospitalization plans, after a splurge as a cure-all for hospital financial ills, settled down to a steady development on sounder principles. They lost many of their obnoxious features when they were taken over by hospital administrators, physicians, and civic-minded persons to be developed as community welfare agencies. The plans were then formed more to assist persons with insufficient incomes to receive necessary hospital care than to serve as a means to financial gain for promoters or hospitals.

THE INFLUENCE OF INSURANCE

The principle of spreading the costs of hospital service over a large group, as advocated by group hospitalization plans, was borrowed from the insurance field. The promoters of early group hospitalization plans, however, maintained that their contracts offered to pro-

28. Report of the Special Committee, Proceedings of the House of Delegates, 1934, p. 55. As revised in June 1935.

vide hospital *services* and not to indemnify the subscriber against loss because of necessary hospital care. Therefore, it was contended that group hospitalization plans did not constitute insurance in the sense that they should be subject to the insurance laws of the state. In most states the insurance commissioner had had no particular occasion to examine into the activities of these plans. It was a common practice for promoters to organize group hospitalization plans with inadequate legal advice, so that a number of plans were put into operation without proper regard for the insurance laws. The following discussion, from the report of a meeting in 1933 of persons interested in group hospitalization plans, is indicative of the then current attitude:

> We made a bad mistake. We know it now. I am saying this for the benefit of the rest of you. Don't make the mistake of asking the Attorney General a thing about it. We wish we hadn't. He is delaying the game. We had our constitution and by-laws, the hospital certificates and advertising, all drawn up ready to go ahead and now we are on the side lines.

and

> We just quietly put the thing into operation by degrees. ..... had a plan. They were all set to go. They got all the hospitals together. Then the attorney for one of the hospitals said, "You had better take it up with the Attorney General." The Attorney General said, "That is insurance." If they had started it in the first place and then fought it out afterward as to whether it was insurance they would have done better.

In October 1933 the Bureau of Medical Economics of the American Medical Association published the results of a survey of the attitude of officials having charge of insurance affairs in each of the states.[29] In only ten states did the insurance officials report group hospitalization contracts were not insurance contracts. However, in at least two of these states, laws have since been passed to govern hospital service corporations. In the remaining thirty-eight states and the District of Columbia, group hospitalization contracts were either reported to be insurance contracts or the officials were uncertain as to whether or not the hospital service contract was insurance.

The desire of certain promoters of group hospitalization plans to be freed from the legal supervision that has been found advantageous for both the buyer and seller of insurance contracts can scarcely be construed to be in the interest of the public welfare. Insurance regulations are designed to prevent undesirable ventures, improper rates, unfair contract provisions, misappropriation of funds, inadequate reserves, and to encourage all sound practices for the purpose of protecting the interests of both parties to the contract.

When the attention of the commissioners of insurance departments was drawn to group hospitalization plans, it was feared that the entire movement would be stopped—at least in those states in which group hospitalization was deemed to be insurance. As an example of the difficulties faced, one state requires the deposit of $100,000 as a guaranty of good faith and $50,000 as working capital before any insurance plan can be put into operation. It was, of course, virtually impossible for hospitals to raise the funds required by certain state insurance laws for the operation of a group hospitalization plan. It would be difficult to raise $150,000 and still retain the nonprofit nature of a group hospitalization plan. Accordingly, in these states it was necessary to have laws passed which would exempt such plans from the deposit requirements of insurance regulations.

In one state the state medical society and the state hospital association were largely instrumental in securing the passage of the first so-called enabling law, in 1934, to permit the operation of nonprofit hospital service corporations by amending the insurance laws. Within two years, similar laws governing the regulation and control of nonprofit hospital service corporations were passed in six other states.[30] The full implication of these laws will be discussed later, but essentially they permitted nonprofit corporations of hospitals approved by the department of social welfare or public health to be exempted from the insurance requirement of a cash deposit. These corporations, however, were subject to the supervision of the commissioner of insurance in regard to rates, contracts, costs, funds and annual reports.[31] The emphasis placed on the insurance nature of group hospitalization plans was of assistance in encouraging group hospitalization organizations to conform to rules and regulations for a more orderly administration.

However, persons interested in promoting commercial group hospitalization plans have begun to organize hospitalization insurance companies. Such companies are incorporated under the insurance laws, are organized as mutual assessment associations or are formed as membership corporations. They sell what is called a "hospital expense only" policy which provides cash payments for stipulated hospital service. Before considering the influence of these companies on hospital service and group hospitalization plans, it would be well to examine into the present status of group hospitalization plans.

29. Group Hospitalization Contracts Are Insurance Contracts, A.M.A. Bull. 28: 113 (Oct.) 1933.

30. The seven states are New York, Maryland, Massachusetts, California, Illinois, Alabama and Mississippi. Bills proposing similar laws were killed in Georgia, Kansas, Oklahoma and Washington. New bills are being considered for Georgia, Iowa, Michigan, Pennsylvania and Wisconsin.

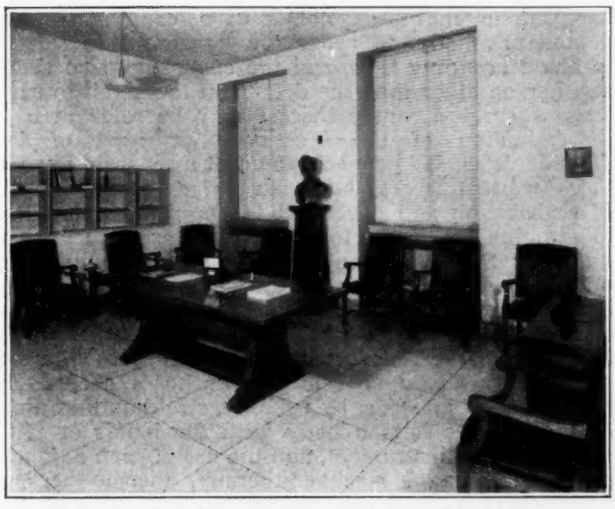
31. See later discussion.

The Home of the American Medical Association

NOTE.—This is the twenty-fourth and the last one of a series of articles discussing the building of the headquarters office and the work of the American Medical Association. The first article appeared in the issue of January 2.

THE N. S. DAVIS RECEPTION ROOM

To one who enters the headquarters building from Dearborn Street, the door to the right opens into a comfortable and well furnished reception room, which has been named the N. S. Davis Room. It was Dr. N. S. Davis who in 1845, before the Medical Society of the State of New York, introduced the resolution that led to the first session of the American Medical Association in Philadelphia, May 5, 1847. On



The N. S. Davis reception room.

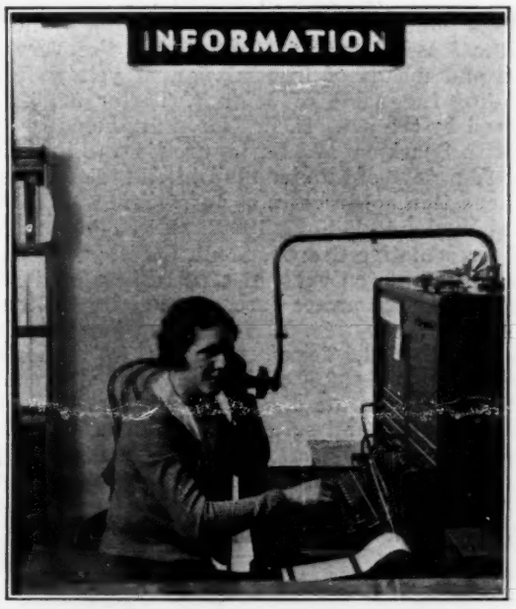
the wall of the reception room hangs a framed copy of the resolution introduced by Dr. Davis, as well as a picture of him. Here also is an excellent bronze bust of Dr. Davis mounted on a pedestal.

Doctor Davis was a delegate from Broome County to the Medical Society of the State of New York at its meeting at the Capitol, Albany, February 4-6, 1845. The Resolution reads as follows:

> Whereas, It is believed that a National Convention would be conducive to the elevation of the standard of medical education in the United States, and
>
> Whereas, There is no mode of accomplishing so desirable an object without concert of action on the part of the medical societies, colleges and institutions of all states, Therefore,
>
> Resolved, That the New York State Medical Society earnestly recommends a national convention of delegates from medical societies and colleges in the whole Union, to convene in the city of New York, on the first Tuesday in May, in the year 1846, for the purpose of adopting some concerted action on the subject set forth in the foregoing preamble.
>
> The Society then adjourned February 6, 1845.

The copy of the resolution now in the N. S. Davis room is quoted from the Transactions of the Medical Society of the State of New York, 1844/46, Vol. 6, page 148.

In the center of the room is a large oak table on which are displayed the numerous periodicals published by the Association, and in a showcase on the wall are copies of all the books and other articles published in this building. The furnishings are of oak and leather. Leading from the reception room is the telephone and information room, which faces the first floor hallway and the two elevators which carry visitors to the various floors. The telephone operator, Miss Margaret Judge, also serves at the information desk. Miss Judge briefly interviews all persons who come to the building and directs them to the proper department from which they are seeking information or invites them to wait in the reception room until some one can come to talk with them. There are eight telephone trunk



Miss Margaret Judge, switchboard operator.

lines into the building and the telephone numbers run consecutively from Superior 0880 to Superior 0887. The switchboard opens in the morning at 8:05 and closes in the afternoon at 4:45. It is possible, however, to be connected with a few departments in the building after closing time. There are in all fifty-one telephone terminals within the building itself. Thus from the information desk one can see or interview all persons who enter the building and assist them in obtaining the information for which they call. To the right of the information

desk are the doors to the stairway, which are kept locked, and to the left is the entrance to the reception room.

This completes the series of descriptions and pictures of the different floors and departments in the headquarters building of the American Medical Association, 535 North Dearborn Street, Chicago, Illinois. At a later time this material will be reedited and assembled in pamphlet form.

Medical Legislation

Medical Bills in Congress

Changes in Status.—H. R. 4716 has been reported to the House, proposing to authorize an appropriation of $1,500,000 to erect a marine hospital in the state of Florida.

Bills Introduced.—S. Res. 143, submitted by Senator Black, Alabama, proposes to direct the Senate Committee on Education and Labor, either acting through the full committee or through a duly appointed subcommittee, to make a complete investigation to determine the best and most effective kind of federal legislation to provide a national public health policy throughout the United States and to report to the Senate as early as practicable its recommendations. S. 2595, introduced by Senator Sheppard, Texas, proposes to provide that persons wholly dependent on officers of the Regular Army, Navy and Marine Corps who are or may hereafter become insane shall be entitled to admission for treatment in Saint Elizabeths Hospital. S. 2623, introduced by Senator Guffey, Pennsylvania, proposes to amend the act recognizing the high public service rendered by Major Walter Reed and those associated with him in the discovery of the cause and means of transmission of yellow fever by including the name of John R. Taylor among those honored by the act. H. R. 7438, introduced by Representative Sparkman, Alabama, proposes to increase the lump sum payment under the United States employees' compensation act in cases of permanent total disability suffered prior to Feb. 12, 1927. H. R. 7447, introduced by Representative Gasque, South Carolina, proposes to provide benefits on account of disability or death due to service in the armed forces of the United States in the event of war. H. R. 7467, introduced by Representative Garrett, Texas, proposes to authorize an appropriation of $1,000,000 to erect a veterans' hospital in Texas for the diagnosis, care and treatment of general medical and surgical disabilities. H. R. 7494, introduced (by request) by Representative Hill, Alabama, proposes to authorize the Bureau of Mines to sell helium for medical, scientific and commercial use under such regulations as the President may approve.

Illinois

Bills Introduced.—H. 943 proposes to authorize courts in civil or bastardy proceedings to order any party to the action and the child in question to submit to blood grouping tests to determine parentage. The results of such tests are to be admissible, however, only when exclusion is established. The bill also proposes to authorize the court in any criminal prosecution, in order to determine whether any blood material to the issue could have come from the defendant's body, to order the defendant to submit to blood grouping tests, and the court may also order any person other than the defendant to submit to such tests where the results thereof may be relevant to a determination of the innocence or guilt of the defendant. S. 488 proposes to enact a separate physiotherapy practice act and to authorize the department of registration and education to appoint a committee to examine applicants for licenses to practice physiotherapy. Such applicants as pass such examinations, on the recommendation of the committee, are to be licensed by the department of registration and education. The bill proposes to define physiotherapy as the "method, art or science of treating the human body for hygienic or remedial purposes exclusively by the use of massage, by rubbing, stroking, kneading, or tapping the human body with the hands or with any agency or instrument, and the use of such adjuncts as hydro-therapy, mechano-therapy, thermo-therapy, actino-therapy, and electro-therapy, exclusive of the x-ray."

Michigan

Correction.—The item concerning the enactment of the basic science bill (Acts 1937, Act. No. 59), appearing in THE JOURNAL June 12, 1937, p. 198B, erroneously stated that one physician, one osteopath and one chiropractor would be among the members of the board of examiners in the basic sciences. The law as enacted provides that "no member of the board shall be a doctor of medicine, chiropractor or doctor of osteopathy." Members of the board must be "full time professors, or associate or assistant professors, who are teaching the subjects of the basic sciences in any university or college in Michigan."

Woman's Auxiliary

Alabama

Mrs. Lee Wright Roe, the president of the Woman's Auxiliary to the Alabama State Medical Association, has reported that the total membership of the Alabama Auxiliary is 251, an increase of about 20 per cent over last year. During the year two gifts of $100 each have been added to the Lettie Daffin Perdue Scholarship Fund, which is one of the most important undertakings of the state auxiliary. Papers entitled "The Doctor's Wife Herself," by the late Mrs. Preston Hunt, and "What the Wife Means to the Physician," by Mrs. Frank N. Haggard, were read at meetings of the auxiliary in several counties. These papers were furnished by the Lending Library Research Committee of the Woman's Auxiliary to the Southern Medical Association. Six of the county auxiliaries in Alabama have given programs in observance of Doctors' Day. Many of the members have been active this year in garden and musical clubs, crippled children's clinics, W. C. T. U. and P. T. A. organizations, and relief work.

At the annual convention, held in Birmingham, April 20-21, Mrs. E. M. Norton of Fairfield, Alabama, was elected state president.

Colorado

The Denver County Auxiliary observed its annual President's Day on March 15. The day is a compliment to the presidents of the Colorado State, Central District, and local Denver members of the Federation of Women's Clubs. The meeting was held in the

Nurses' Home of the Denver General Hospital. After a short musical program, brief talks were made by Mrs. Ernestine Perrine, state president of the Federation of Women's Clubs, Mrs. Alexander Gair, central district president, and Mrs. James G. Moore, Denver president.

Dr. A. J. Markley gave an address at this time on "The Prevention of Communicable Disease."

The Denver Auxiliary has continued its philanthropic work. It has recently made a donation of $25 to Red Cross relief.

Delaware

During the year the Wilmington Auxiliary has made a study of some of the children's welfare organizations, and monthly sewing meetings have been held. An open meeting, to which were invited the members of women's civic clubs and allied organizations, was held at the Academy of Medicine this spring. Active committees have worked with the Women's Field Army for the Control of Cancer and with other civic and social organizations.

Michigan

The pamphlet entitled "Who Wants State Medicine?" prepared by the Michigan State Medical Society, was recently distributed by the members of the auxiliary to the high school students for their use in preparing for a debate on the question "Resolved that Michigan enact a law providing for health insurance."

January 27, at Trinity Parish House, the auxiliaries of Saginaw, Tuscola and Midland counties united in a luncheon meeting. There were sixty-five members present. Dr. Frank J. Clancey, director of the Bureau of Investigation of the American Medical Association, spoke on "Quackery in Cosmetics."

At the February meeting of the Jackson County Auxiliary, Mr. Fred Johnson of the Michigan Children's Aid Society spoke of the work of this organization. At the March meeting Dr. Philip E. Riley explained the proposed basic science law, pending before the state legislature, and Rev. Carl S. Winters reviewed James Hilton's "Lost Horizon."

The Woman's Auxiliary to the Kalamazoo Academy of Medicine has held regular business meetings during the year and has had cooperative dinners preceding its evening programs. At one of the meetings Prof. Lemuel F. Smith of Kalamazoo College spoke on his visit to England last summer. The members of the auxiliary attended the Academy of Medicine as its guests at an evening meeting. William C. Halnon of the National Youth Administration spoke on the National Youth Movement. The Kalamazoo Auxiliary continues its interest in the Hard of Hearing School, for which a radio ear was purchased by its members.

The Kent County Auxiliary has held its regular meetings at the Medical Arts Club Rooms in Grand Rapids. At one of the meetings Dr. A. B. Smith, president of the Kent County Medical Society, spoke on "Social Problems." At the March meeting Dr. Carl N. Snapp, a member of the state legislative committee, spoke on the proposed basic science law and the importance of this bill being passed. Members of the auxiliary were guests of the Kent County Medical Society at a social meeting on March 13. The orchestra on this occasion consisted entirely of physicians, with Dr. A. B. Smith as orchestra leader.

At a recent meeting of the Wayne County Auxiliary Dr. Harold Mack spoke on "Oliver Wendell Holmes." The auxiliary was included in the Ninth Annual Child Health Institute, presented by the J. L. Hudson Company, March 8 to 13, in the Hudson Auditorium, March 11 being assigned to the auxiliary. Dr. Thomas K. Gruber, president of the Wayne County Medical Society, presided at the morning session and introduced Dr. W. E. Blatz of University of Toronto, who spoke on the "Romance of the Quintuplets." His subject for the afternoon session was "The Development of the Quintuplets." Dr. Blatz was a substitute speaker for Dr. Allan Roy Dafoe, whose schedule was interrupted because of illness. The Wayne County Auxiliary arranged a mass meeting on March 24 at the Statler Hotel in Detroit for the purpose of making known to the public the national program of the American Society for the Control of Cancer. At this meeting Dr. William A. O'Brien, associate professor of pathology and preventive medicine at the University of Minnesota, spoke on "Women's Contribution to the Cancer Problem." Governor Frank Murphy's proclamation of Cancer Week in Michigan, March 21, has encouraged the Woman's Auxiliary of Wayne County and the officers of the Women's Field Army in Michigan to continue their efforts in the education of the public with regard to cancer control.

Oklahoma

The Cleveland County Auxiliary made arrangements with the University of Oklahoma to broadcast a health talk by Dr. Guy H. Williams, county health officer of Cleveland County. This talk was given recently and was heard by 300 listeners' groups throughout the state, most of them high school students.

The Oklahoma County Auxiliary entertained the wives of the visiting doctors during the annual meeting of the Oklahoma City Clinical Society. The members of the auxiliary have given constant assistance to the Crippled Children's Hospital. The Pittsburg County Auxiliary also has contributed to a fund for crippled children and has purchased an "iron lung" to be used in its community. The Pittsburg Auxiliary has placed *Hygeia* in the schools of its county and in its libraries.

The Tulsa Auxiliary has continued its programs for children's hour at Morningside Hospital once each week and has added a large number of books to the library in St. John's Hospital to be used by nurses and patients. The auxiliary has contributed to the fund for undernourished babies, to the Public Health Association and to the Nursing Home. It also has directed a health poster contest in the public schools.

The annual meeting will be held in Tulsa, May 10 to 12. Mrs. Charles R. Rayburn, state president, by asking every doctor's wife who is eligible to auxiliary membership to join, has greatly increased auxiliary membership in Oklahoma. At the state convention medical exhibits of historical importance, which have been assembled by various county auxiliaries, will be on display.

Virginia

At the board meeting of the Woman's Auxiliary to the Medical Society of Virginia, which was held in Norfolk, Mrs. Franklin D. Wilson, the president, made the following recommendation, which was accepted: That a handbook for county auxiliaries be prepared to include an official health program and to be revised and simplified but patterned after the national handbook for state auxiliaries. Dr. Philip St. Leger Moncure was speaker at the meeting and Mrs. Southgate Leigh read resolutions, which were published in the April issue of the *Virginia Medical Monthly*, on the death of Dr. J. Allison Hodges, a friend and stanch supporter of the auxiliary.

The Auxiliary to the Richmond Academy of Medicine has raised funds for the endowment of three beds in the new tuberculosis ward at the Crippled Children's Hospital; it has contributed a certain amount each year for specimen jars for the Pathological Museum in the Richmond Academy of Medicine and has established the Mary Gray Hodges Memorial Fund, which will be increased each year, a part of which will be given to the state bed fund for a doctor or his dependents at the tuberculosis sanatorium.

Medical Economic Abstracts

HEALTH INSURANCE OPPOSITION ALMOST UNANIMOUS

The Allegheny County Medical Society sent a questionnaire to its members, asking them to vote on approval or disapproval of compulsory health insurance. The *Pittsburgh Medical Bulletin* (**26**:345 [April 17] 1937) gives the result. Out of 642 members who answered the questionnaire, 633, or 98.6 per cent, disapproved compulsory health insurance, and nine, or 1.4 per cent, approved.

Cards were then checked with the American Medical Association Directory as to age, specialty and years since graduation. The results answered the repeated statement that the younger men are in favor of compulsory insurance, since, with the dividing line placed at 50 years of age, there were only two under 50 who favored, compared with 334 who opposed compulsory health insurance; while, of those over 50 years of age, there were seven who favored and 299 who opposed. Of general practitioners, 0.9 per cent were for compulsory health insurance and 99.1 against; of specialists, 98.8 per cent were opposed and 1.2 per cent in favor.

Like every investigation of the opinion of the physicians of the United States this one shows that they are overwhelmingly in agreement with the position taken by the House of Delegates in opposition to compulsory health insurance.

SOCIAL MEDICINE IN CZECHOSLOVAKIA

Prof. Hynek Pelc, in the *Bruxelles-médical* (**17**:371 [Jan. 10] 1937) describes the methods that he uses in teaching "social medicine" at the Charles University in Prague. He looks on social medicine as a clinical subject. The course extends over two semesters of five hours weekly—two hours of lectures on Monday afternoon and three hours of institutional visits on Saturday morning. Each visit is arranged to follow a theoretical lecture on the subject of the visit. The first semester is devoted to what might be called social pathology and social hygiene, and the second to the organization of public health and curative medicine.

The first semester deals with vital statistics, general sanitation, physical education, popular nutrition and housing. Maternity and child welfare, eugenics, antepartum treatment, and care of infants, preschool children, and adolescent pupils are treated, with special consideration of defectives, such as the deaf, blind and mentally backward.

Social hygiene includes the care of the insane and the preventive possibilities of mental hygiene, together with the function of society in the treatment of tuberculosis, venereal diseases, alcoholism, heart disease, rheumatism, diabetes and cancer.

The concluding lectures in the first semester deal with labor legislation, with regard not only to improved hygienic conditions in workshops but also the handling of the more important occupational diseases.

The program of visits to the institutions illustrating the lectures is carefully organized, with the cooperation of the administrators.

In dealing with the professional organization of medicine, a prominent member of the national medical association, which in Czechoslovakia is organized as a "Chamber of Physicians," discusses the laws concerning medical organizations and medical ethics.

Four lessons deal with sickness insurance, which, from the medical point of view, is the most important branch of social insurance. Insurance classifications of patients with regard to sickness and inability to work, especially in the consideration of workmen's compensation, are illustrated by clinical cases in the hospital. Typical institutions of sickness, accident, invalidity and old age insurance are visited, to give the students an idea of the internal organization of insurance.

All divisions of the Prague Health Department are studied, and the director of the General Hospital, in which many of the courses are given, discusses questions of hospital administration, finance, the purchase of material, and equipment. The course reaches its climax with a visit to the headquarters of the medical association, where all the various heads of departments are seen.

MEDICAL SERVICE IN NEW YORK WPA

The Public Information Section of the Works Progress Administration quotes Administrator Brehon Somervell of New York with regard to a more satisfactory handling of accident cases, resulting in an incidental saving from the use of the physicians' panel system in place of project doctors by the Compensation Department of the Works Progress Administration. This plan follows the legislation urged by the Medical Society of the State of New York and has been gradually introduced, beginning last January, into the WPA.

During April, 842 accident cases were referred to panel physicians as compared with 1,145 in March. At the same time the number of treatments given declined from 3,355 in March to 2,603 in April. There was also a reduction in the number of cases involving disability covering a period of more than three days. Under the doctor to panel system the number of cases treated averaged more than 5,000 a month, and thirty-eight physicians were employed full time. In addition there were four borough supervisors, seven nurses, two assistant medical directors and a medical director. There are now five panels of physicians and pharmacists and a medical director for each panel.

The 1,145 cases attended during March were distributed among 608 physicians, and Colonel Somervell reported that in spite of predictions to the contrary there are no signs of political favoritism.

PROFESSIONAL PROVISION OF MEDICAL CARE

Dr. P. M. McNeill, president of the Oklahoma County Medical Association, in reply to a charge that the high fees charged by doctors frightened away patients in need of medical care and that the physicians' interest in such fees is back of their opposition to cooperative schemes, pointed out that during last year physicians gave 25,496 low-salaried residents of Oklahoma county medical services valued at $1,000,000, without charge. In addition, they gave many others services at reduced rates. Statistics indicate that these patients received at least 256,776 operations, hospital calls and treatments. In order to remove any embarrassment that persons with low incomes might feel in asking physicians for service at reduced rates, a medical service bureau was established and is supported entirely by the physicians. This bureau arranges financial matters and encourages patients to select their own hospital.

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Devoted to the Organizational, Business, Economic and Social Aspects of Medical Practice

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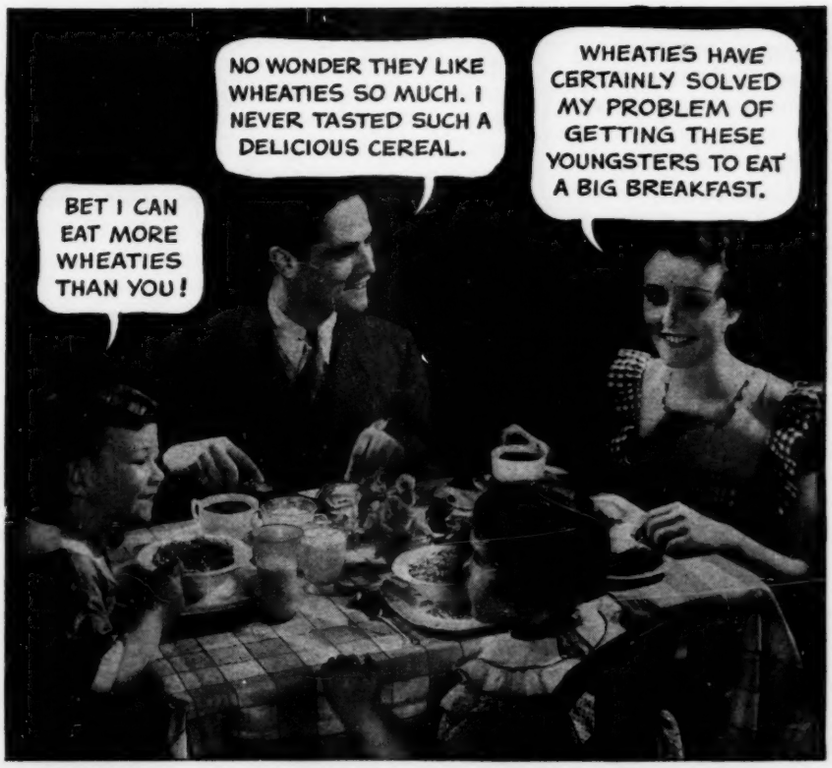
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"the commonest ailment of infants in the summer months"

(HOLT AND McINTOSH: HOLT'S DISEASES OF INFANCY AND CHILDHOOD, 1933)

One of the outstanding features of DEXTRI-MALTOSE is its low fermentability and consequent preference in the management of infantile diarrhea

There is a widespread opinion that, thanks to improved sanitation, infantile diarrhea is no longer of serious aspect. But Holt and McIntosh declare that diarrhea "is still a problem of the foremost importance, producing a number of deaths each year. . . . ." Because dehydration is so often an insidious development even in mild cases, prompt and effective treatment is vital. Dextri-Maltose has outstanding merit in diarrheal cases because it supplies essential carbohydrate that is well tolerated during treatment as well as in convalescence.

Just as DEXTRI-MALTOSE is a *carbohydrate* modifier of choice, so is CASEC (calcium caseinate) an accepted *protein* modifier. Casec is of special value for (1) colic and loose green stools in breast-fed infants, (2) fermentative diarrhea in bottle-fed infants, (3) prematures, (4) marasmus, (5) celiac disease.

MEAD JOHNSON & COMPANY, Evansville, Ind., U.S.A.

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Proves of special service in the treatment of pus cases

ENZYMOL resolves necrotic tissue, exerts a reparative action, dissipates foul odors; a physiological, enzymic surface action. It does not invade healthy tissue; does not damage the skin.

It is made ready for use, simply by the addition of water.

These are simply notes of clinical application during many years:

Abscess cavities	Diabetic gangrene
Antrum operation	After removal of tonsils
Sinus cases	After tooth extraction
Corneal ulcer	Cleansing mastoid
Carbuncle	Middle ear
Rectal fistula	Cervicitis

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